31 31 031 Replacing front left or right spring strut shock absorber

Spring preload.

Danger! Life-threatening injuries!

- Secure coil spring using special tool **2 213 022 (31 3 340)**.
- Use special tool as per owner's handbook and always observe the safety information.

Spring preload.

Danger of injury!

- The use of the specified special tool (tool) is mandatory.
- The described operation must be carried out properly.

Description is for left component only. Procedure on the right side is identical.

PRELIMINARY WORK

1 – Removing the front left wheel

▶ Removing the wheel

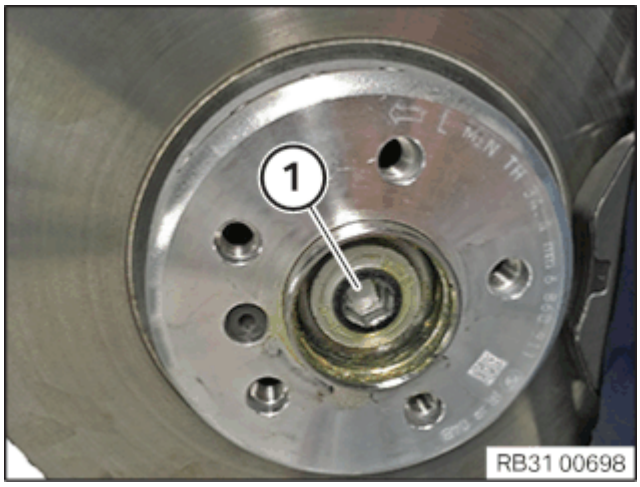
A wheel lift is recommended for easier wheel removal and installation without exertion (see Retailer Equipment Catalogue).

- **In vehicles with M Carbon ceramic brake: The wheel lift must be used to remove the wheel.**

  This process is intended to prevent damage to the brake disc.

- If several wheels are removed at the same time: Use a piece of chalk to mark on each tyre the axle and side on which the corresponding wheel is fitted.
- Release the wheel bolts (arrows) crosswise and remove the wheel.
- To release and tighten wheel bolts with a security code: Use the correct adapter from the set of special tools .

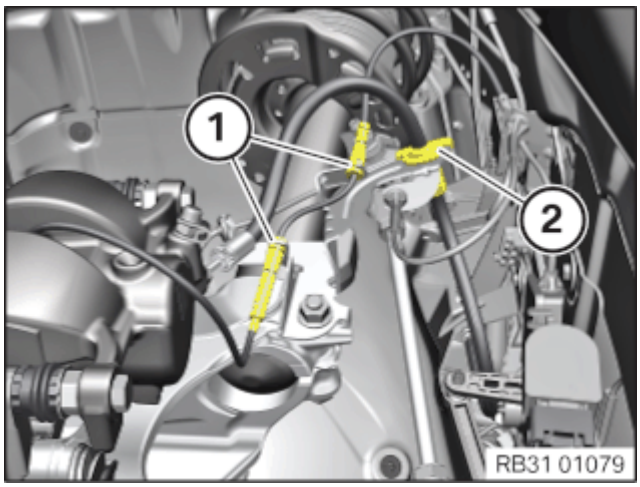
2 – Loosen the output shaft from the wheel bearing



- Press brake pedal.
- Loosen the collar bolt (1).

  Do not leave the output shaft hanging on the joint, tie up the output shaft if necessary.

3 – Detaching the front brake hose

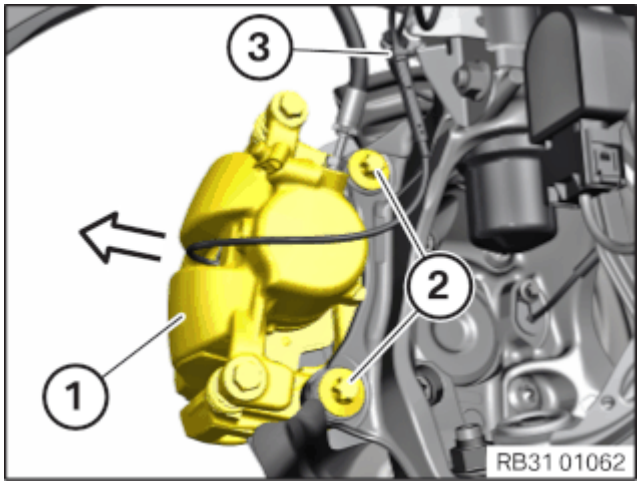


- Detach the brake hose from the holder (2).

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.

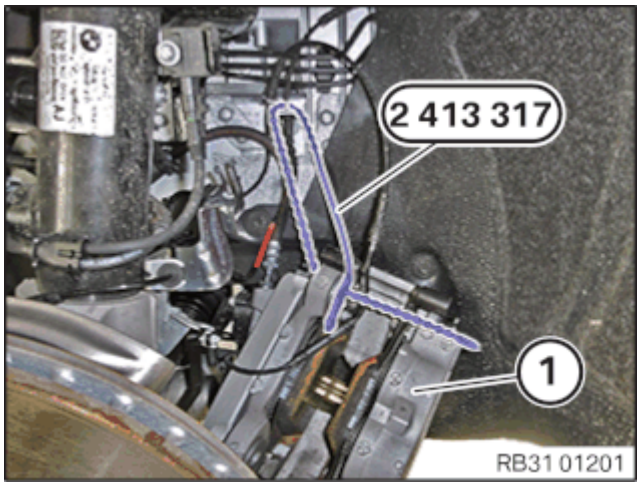
- Detach the cable for the brake pad wear sensor from the holders (1).

4 – Detach the front brake caliper



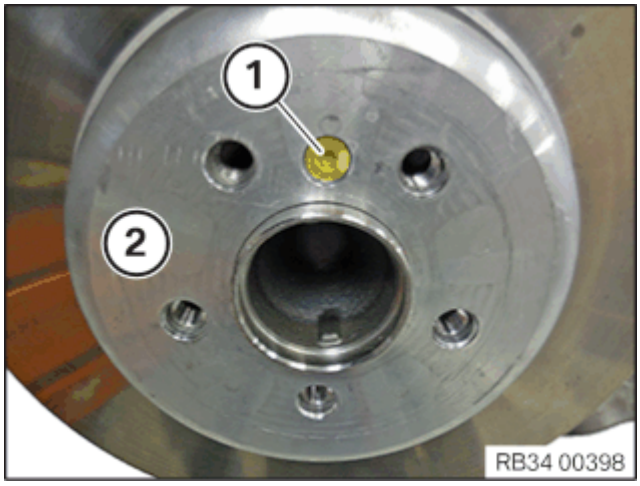
- Release the cable of the brake pad wear sensor from the holder (3).
- Loosen screws (2).
- Remove brake caliper (1) in direction of arrow.

  The brake caliper (1) must not hang on the brake hose.



- Tie up the brake caliper (1) with the special tool **2 413 317**.

5 – Remove front brake disc

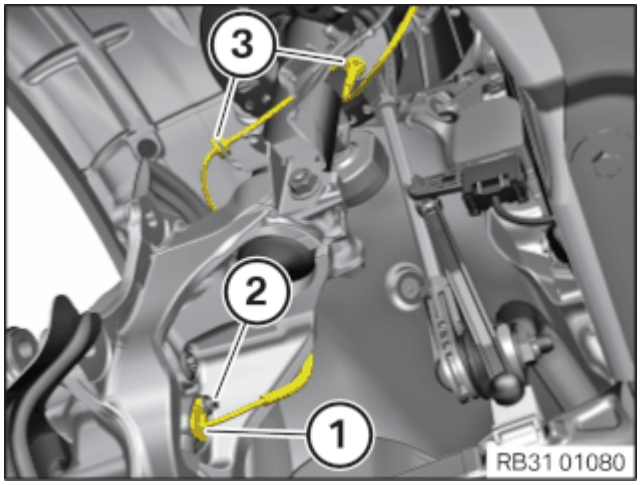


Note the following for the removal of the brake disc:

Do not strike the friction ring with a tool under any circumstance (for example, hammer). If required, **carefully** tap with a rubber mallet against the brake disc chamber.

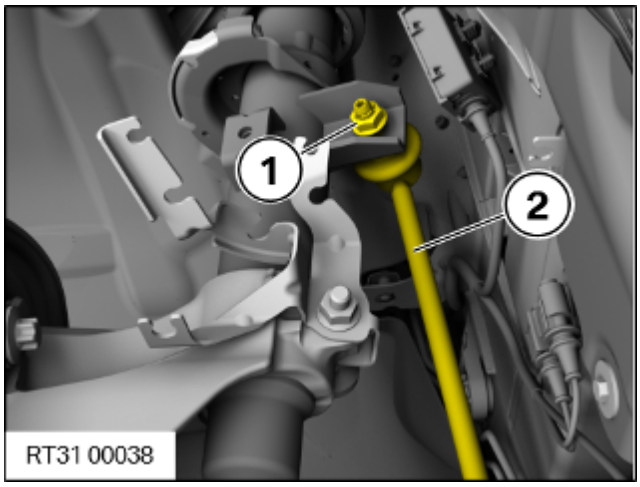
- Loosen screw (1).
- Remove brake disc (2).

6 – Partially removing the front wheel speed sensor



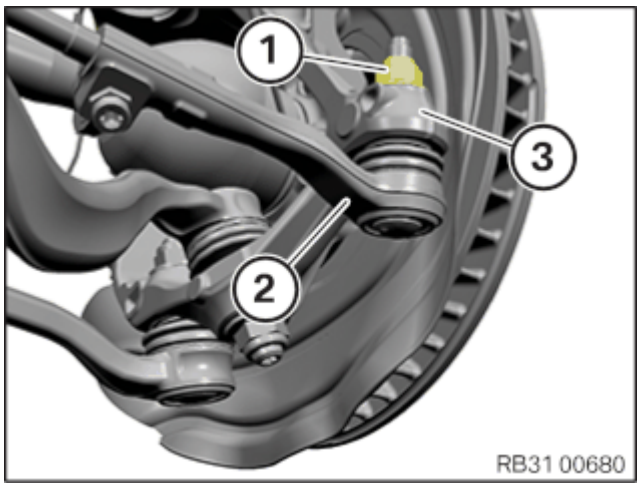
- Loosen screw (2).
- Release the wheel speed sensor (1) from the swivel bearing.
- Detach the wheel speed sensor cable from the brackets (3).
- Remove wheel speed sensor from spring strut.

7 – Releasing the anti-roll bar link from the spring strut



- Loosen the nut (1), if necessary, counter-hold the Torx socket.
- Release the anti-roll bar link (2) from the spring strut.

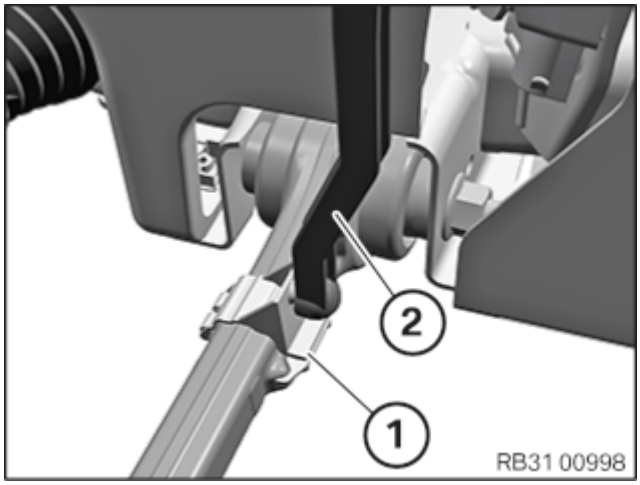
8 – Loosening the track rod from the swivel bearing



- Release nut (1). If necessary, counter support at the Torx socket.
- Detach the track rod (2) from the swivel bearing (3).

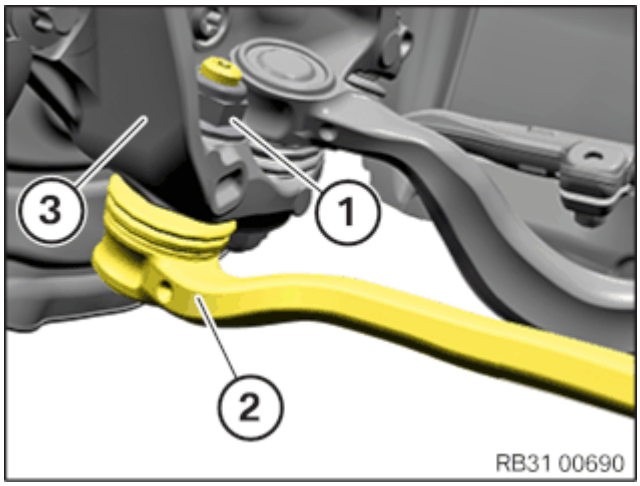
9 – Release the ride height sensor from the lower control arm

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.

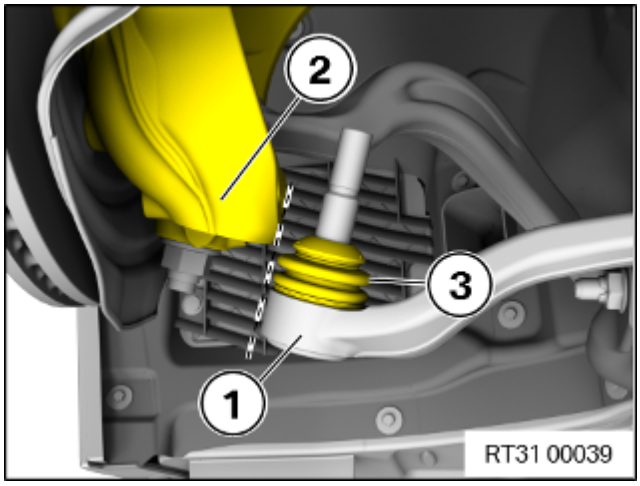


- Unlock holder (1) of attachment rod (2) of ride height sensor and release from lower control arm.

10 – Releasing the wishbone from the swivel bearing



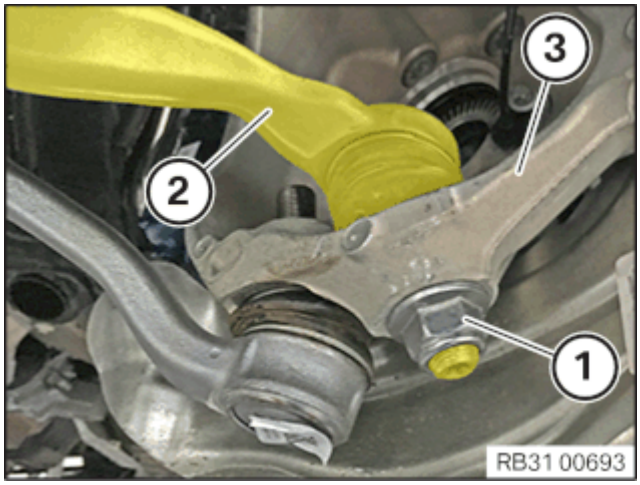
- Release nut (1). If necessary, counter support at the Torx socket.
- Release wishbone (2) from swivel bearing (3).



Otherwise, the rubber grommet can be damaged. The components must not be touching.

- Make sure that the rubber grommet (3) on bottom wishbone (1) is not damaged by the swivel bearing (2).

11 – Releasing the tension strut from the swivel bearing

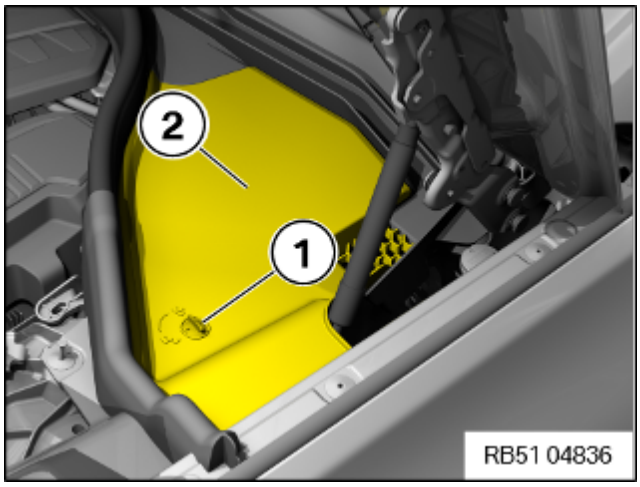


- Unfasten nut (1).

Note: Use the Torx socket for counter support.

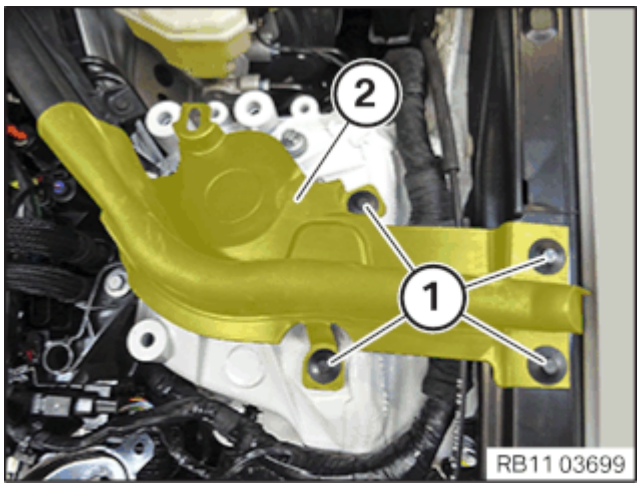
- Release the tension strut (2) from the swivel bearing (3).

12 – Remove the cover of the engine compartment at the rear left



- Loosen the lock (1).
- Remove the cover (2) of the rear left engine compartment.

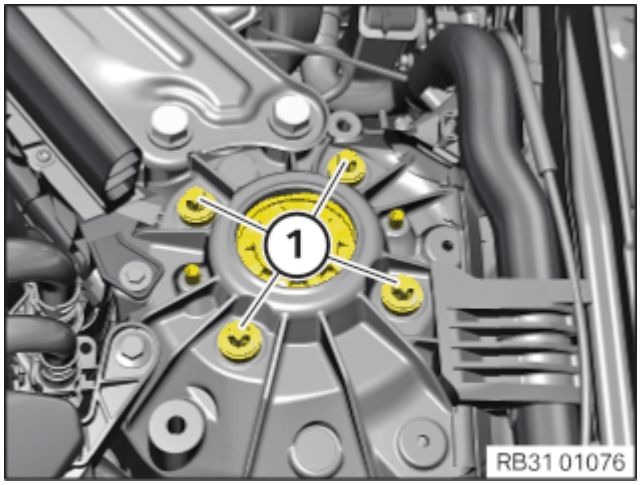
13 – Removing side bonnet seal



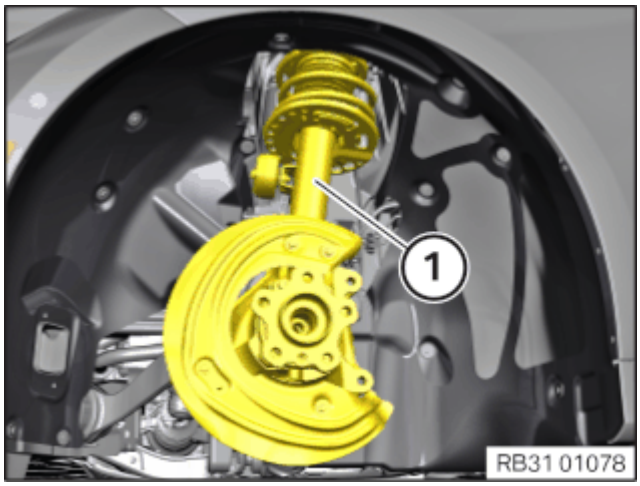
- Loosen the rivet (1).
- Release and remove side bonnet seal (2) from spring strut dome.

14 – Remove spring strut

Secure component against falling.



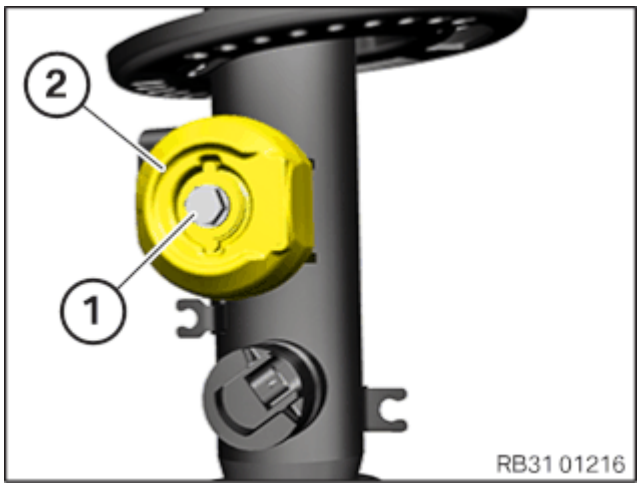
- Loosen screws (1).



- Remove the spring strut (1) with the swivel bearing.

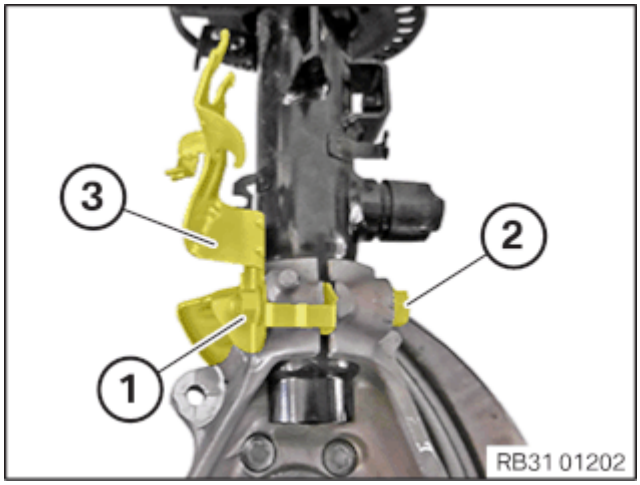
15 – Removing the absorber weight from suspension strut

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.

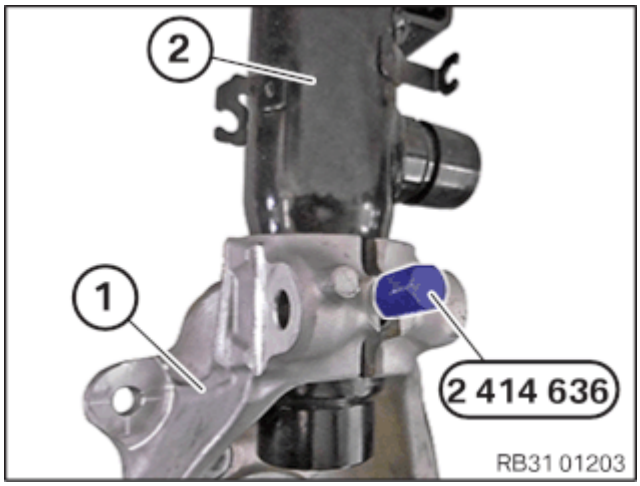


- Loosen screw (1).
- Remove absorber weight (2).

16 – Releasing the spring strut from the swivel bearing



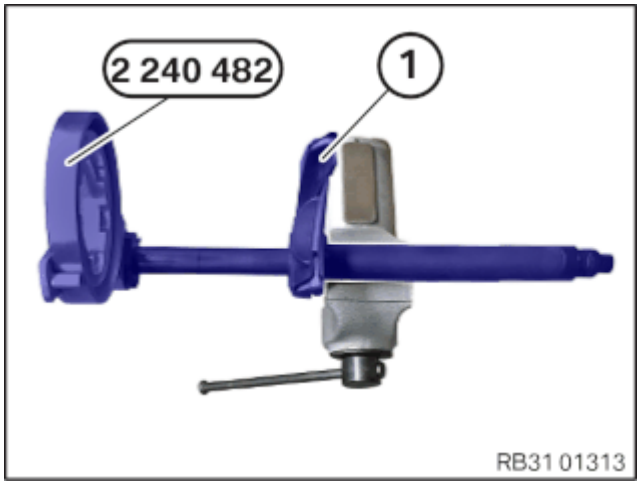
- Unfasten nut (1).
- Pull out bolt (2).
- Remove the holder (3).



- Spread the swivel bearing (1) with the special tool .
- Pull out the spring strut (2) from the swivel bearing (1).

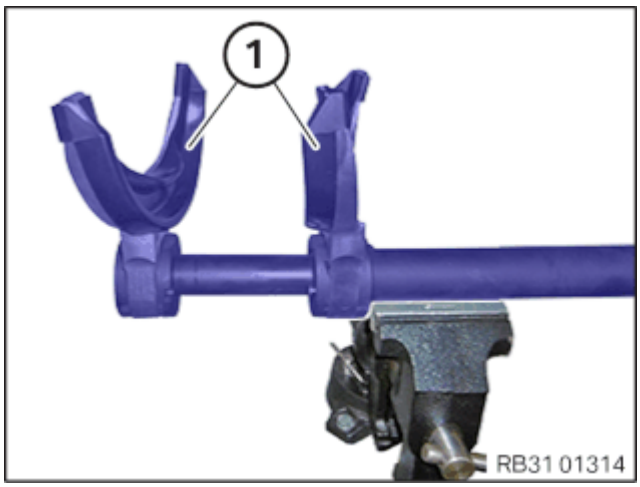
17 – Prepare the spring tensioner

Different variants may be installed depending on the vehicle equipment.



- **Basic version:**

  Ensure that the coil spring is tensioned with the special tool and a pressure plate (1).



- **Sport and BMW M Performance Automobile version:**

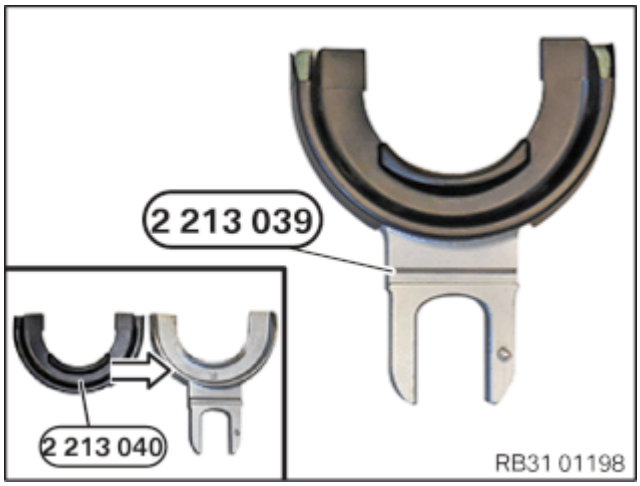
  Ensure that the coil spring is tensioned with two pressure plates (1).

▶ Preparing the spring tensioner (basic version)

Damage of the coil spring.

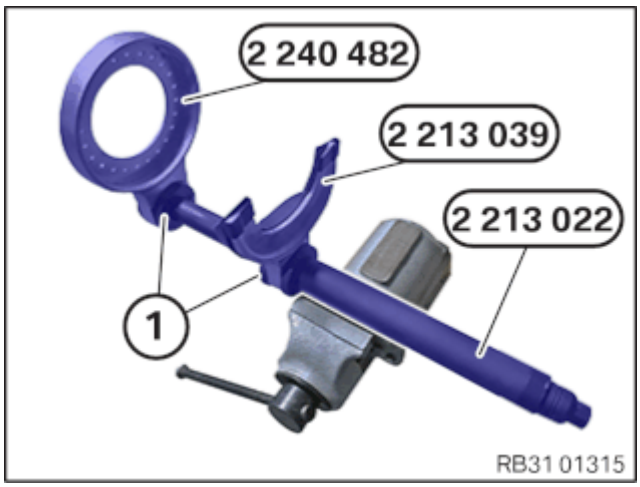
Any use of faulty protective inserts leads to coil spring damage. Faulty protective inserts may lead to a cracked coil spring (corrosion).

- Check the protective insert for wear or damage and if necessary, renew the protective inserts.

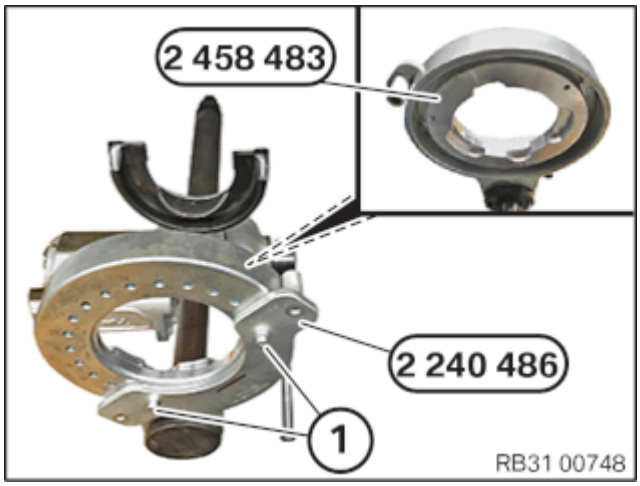


- Mount special tool **2 213 040 (31 3 364)** in direction of arrow on special tool .

  Special tool must be used **without fail** with the protective insert!

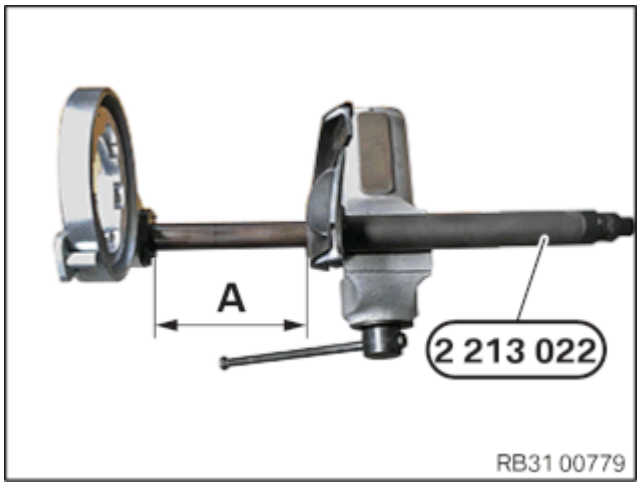


- Clamp special tool in vice.
- Set the special tools and on the special tool from the top, till the retaining bolts (1) engage tangibly and audibly.
- Check and correct the position of the special tools and and correct if required.



- Position special tool in the mounting plate.
- Position special tool on the mounting plate.

  The screw connection is made by way of bore holes **7** and **15**.
- Turn the special tool until the special tool can be screwed into the prescribed bore holes.
- Tighten screws (1) hand-tight.



- Adjust the special tool on the dimension (A).

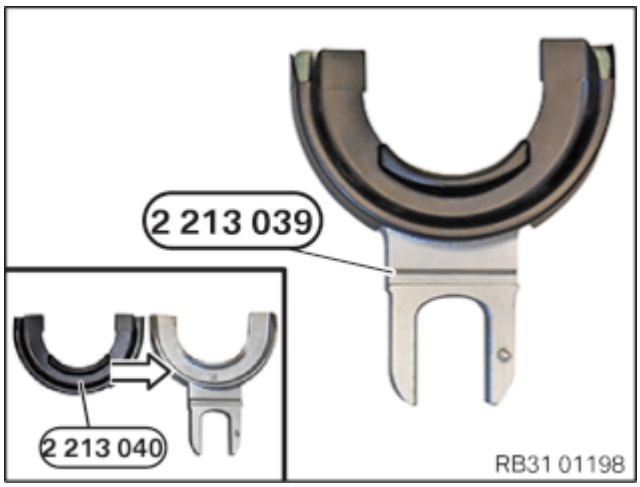
  Dimension (A) = 150 mm to 175 mm

► Preparing spring tensioner (Sport and BMW M Performance Automobile)

Damage of the coil spring.

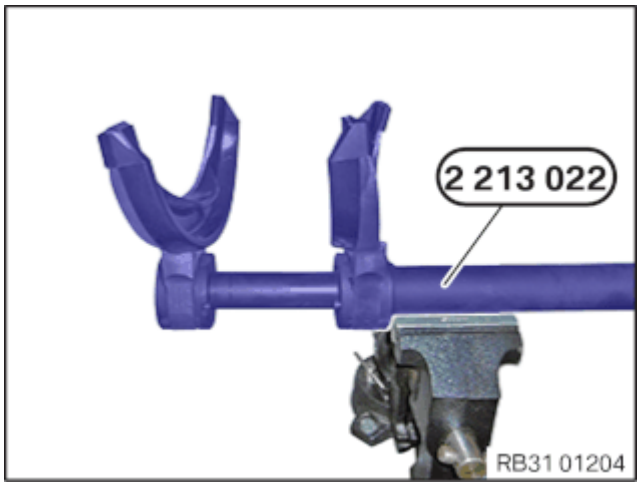
Any use of faulty protective inserts leads to coil spring damage. Faulty protective inserts may lead to a cracked coil spring (corrosion).

- Check the protective insert for wear or damage and if necessary, renew the protective inserts.

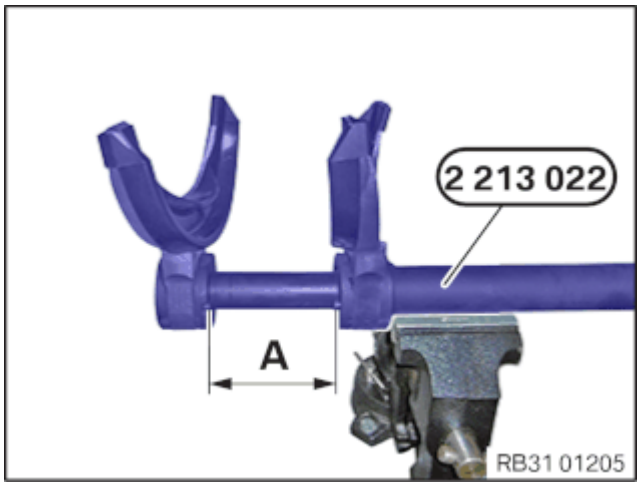


- Mount special tool **2 213 040 (31 3 364)** in direction of arrow on special tool .

  Special tool must be prepared twice and used with the protective insert **without fail**.



- Clamp the special tool in the vice.
- Place the pressure plates from the top on to the special tool until you can feel and hear the retaining bolts engage audibly.
- Check the position of the pressure plates, correct if necessary.



- Adjust the special tool to dimension (A).

  Dimension (A) = 90 mm - 95 mm

MAIN WORK

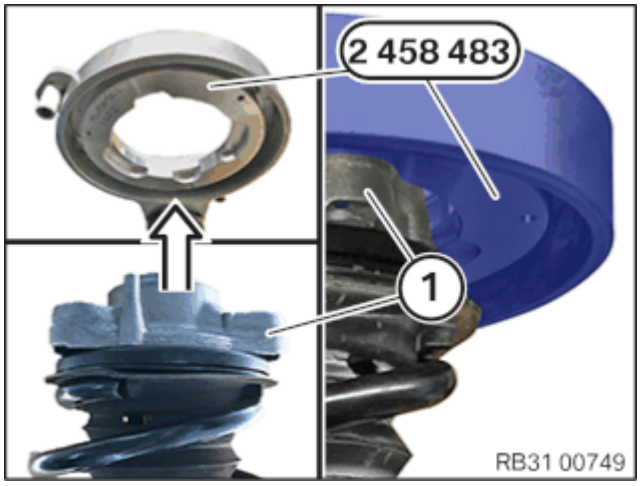
18 – Replacing the suspension strut (basic version)

▶ Tensioning the coil spring (basic version)

Spring preload.

Danger! Life-threatening injuries!

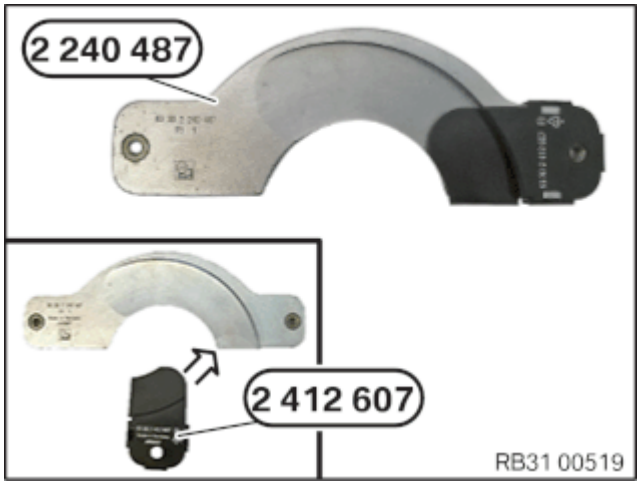
- Secure coil spring using special tool **2 213 022 (31 3 340)**.
- Use special tool as per owner's handbook and always observe the safety information.



- Clean coil spring to remove heavy contamination.
- Insert the suspension strut in the spring tensioner and position the strut mount (1) on the special tool in the direction of arrow.

  Strut mount (1) must lie completely on special tool .

  Bottom coil of coil spring must rest completely in the recess of special tool .

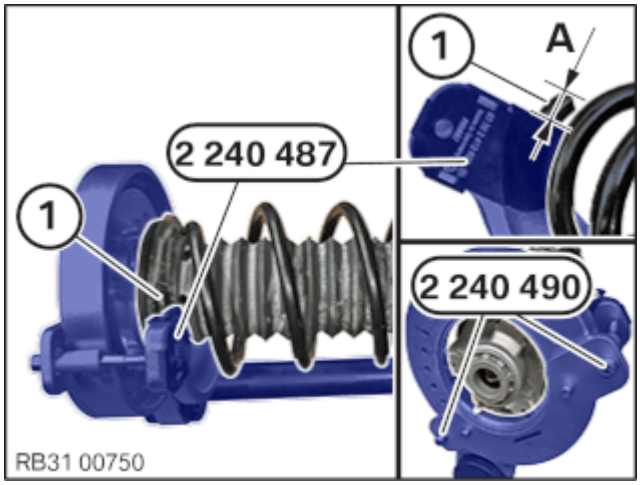


Damage of the coil spring.

Any use of faulty protective inserts leads to coil spring damage. Faulty protective inserts may lead to a cracked coil spring (corrosion).

- Check the protective insert for wear or damage and if necessary, renew the protective inserts.

- Mount special tool in direction of arrow on special tool .



- Position special tool with special tool .

  The rubberised side of special tool must lie on the top coil of the coil spring.

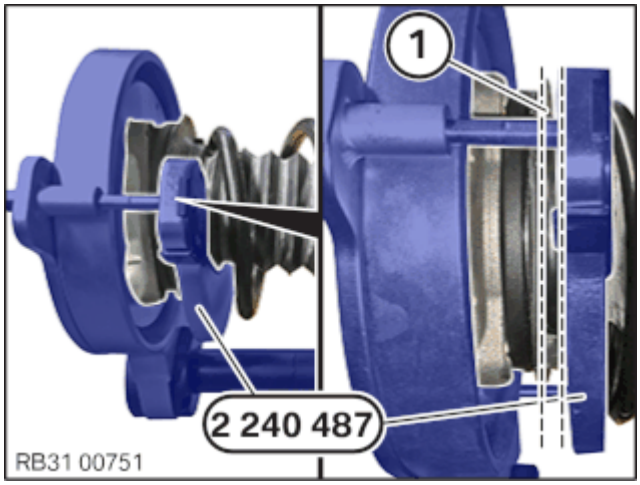
- Position the spring strut in such a way that the coil spring end (1) protrudes with the dimension (A) on the special tool .

  Dimension (A) = 40 mm

- Tighten special tool uniformly.

Special tool to pressure plate

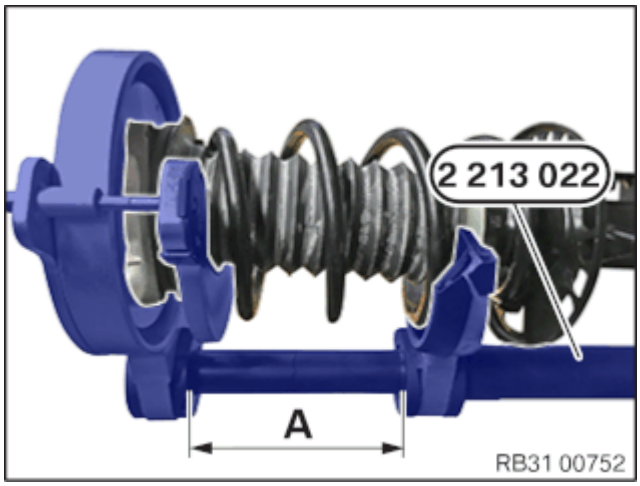
Tightening torque	8 Nm



- Make sure that the special tool lies parallel (1) to the upper coil of the coil spring.

  The tensioning process must be stopped immediately if the coil spring end relative to the special tool starts to twist.

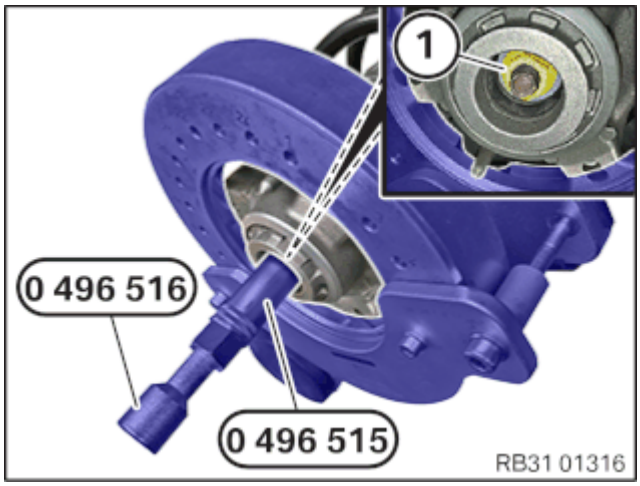
- Check position of the special tool and correct if necessary.



- Tension the coil spring until dimension (A) is reached at the special tool .

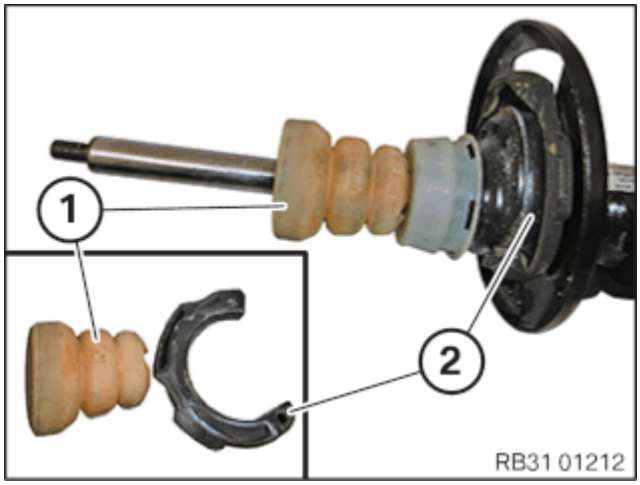
  Dimension (A) = 95 mm to 70 mm

  The dimension (A) **must not be undershot.**



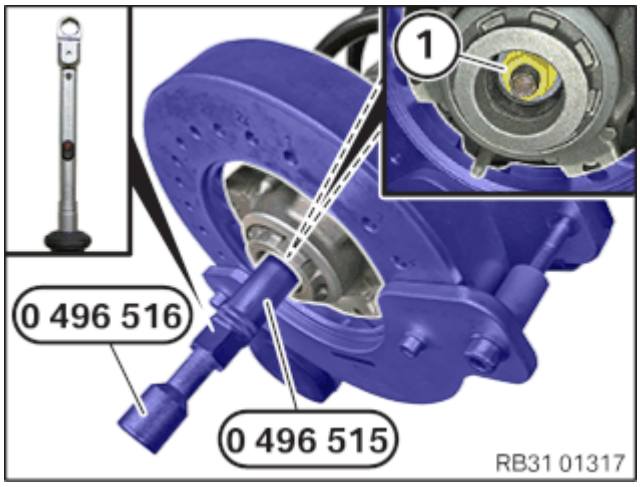
Releasing and tightening the nut on the support bearing or strut mount with an impact screwdriver is prohibited.

- Unscrew the nut (1) with special tools and .



- Remove suspension strut from tensioned coil springs.
- Remove auxiliary damper (1) and spring pad (2) from suspension strut, check and renew if necessary.
- Renew the spring strut.

  Parts: Spring strut shock absorber
- Mount the auxiliary damper (1) and the spring pad (2) onto the suspension strut .
- Make sure that the position of the spring pad (2) is correct.
- Push in suspension strut with auxiliary damper (1) and spring pad (2) into tensioned coil spring.



Releasing and tightening the nut on the support bearing or strut mount with an impact screwdriver is prohibited.

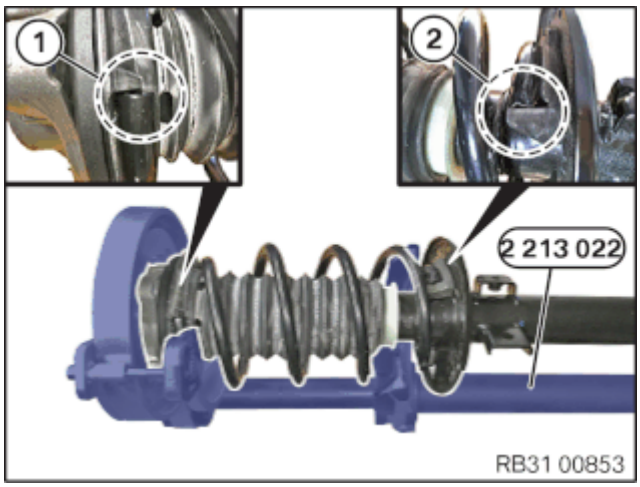
- Renew nut (1).

  Parts: Nut
- Tighten the nut (1) with the special tools and .

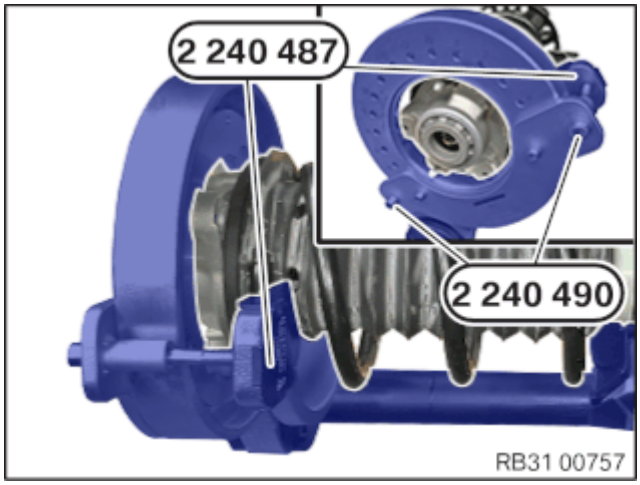
Front spring strut support bearing to spring strut

M12	Renew nut.	71 Nm

▶ Relieve tension on coil spring



- Align the spring strut with the spring pad to the bottom coil spring end (2).
- Release coil spring using special tool .
- Check the position on the top coil spring ends (1) and bottom coil spring end (2), correct if necessary.



- Release the special tool .
- Remove special tool .
- Remove spring strut from spring tensioner.

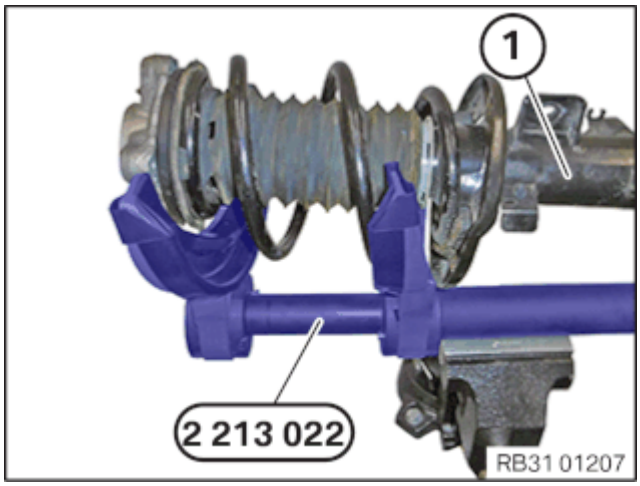
19 – Replacing the suspension strut (Sport and BMW M Performance Automobile)

► Tensioning coil spring (Sport and BMW M Performance Automobile)

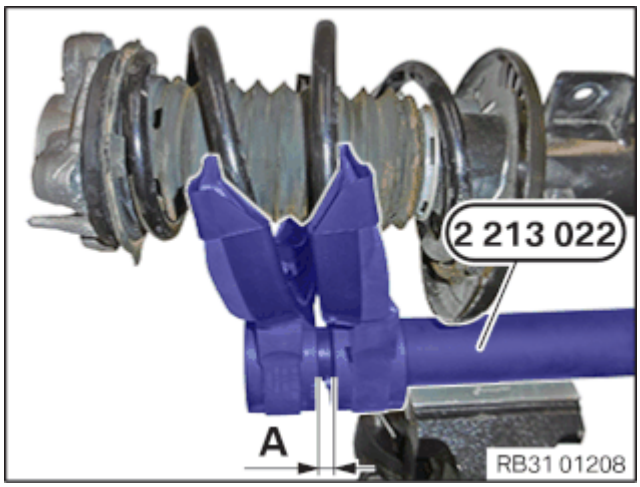
Spring preload.

Danger! Life-threatening injuries!

- Secure coil spring using special tool **2 213 022 (31 3 340)**.
- Use special tool as per owner's handbook and always observe the safety information.



- Clean coil spring to remove heavy contamination.
- Hook the spring strut (1) to the coil spring with the pressure plates.
- Make sure that the coils of the coil spring are completely placed in the slots of the pressure plates.



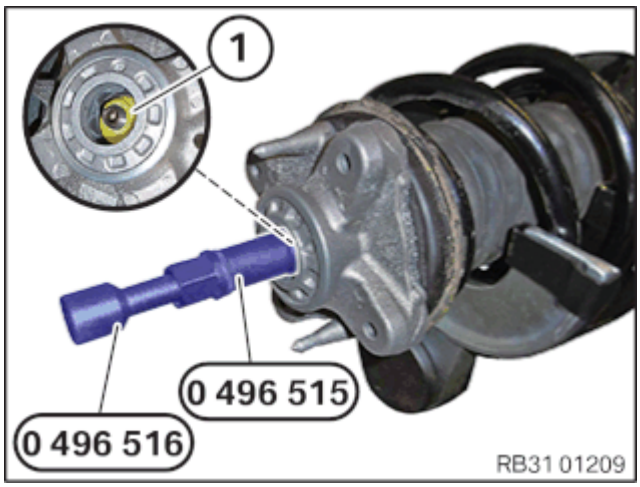
Different variants may be installed depending on the vehicle equipment.

- Tension the coil spring until the dimension (A) is reached at the special tool .

  Dimension (A) = 10 mm

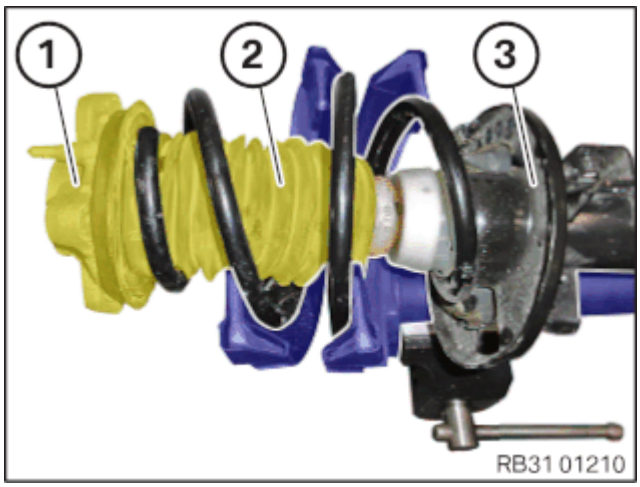
  The dimension (A) **must not be undershot.**

▶ Remove the spring strut support bearing

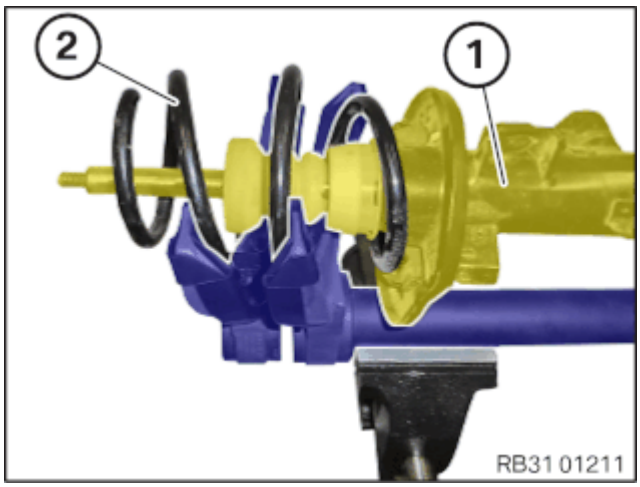


Releasing and tightening the nut on the support bearing or strut mount with an impact screwdriver is prohibited.

- Release the nut (1) at the spring strut support bearing with the special tools and .

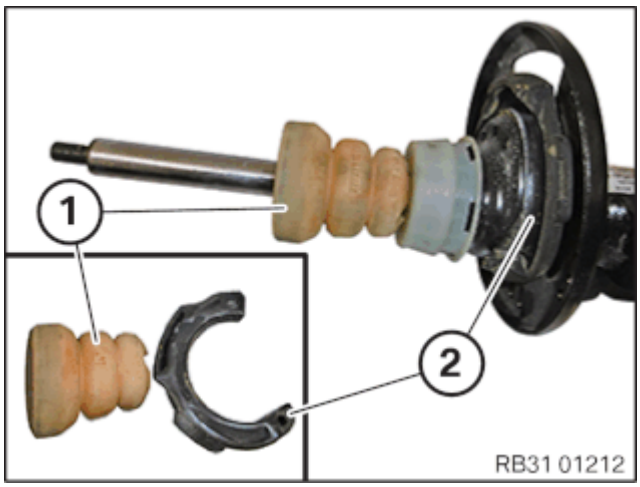


- Pull the spring strut support bearing (1) with the protective tube (2) from the spring strut (3) and remove it.



- Remove the spring strut (1) with the spring pad and the auxiliary damper from the tensioned coil spring (2).

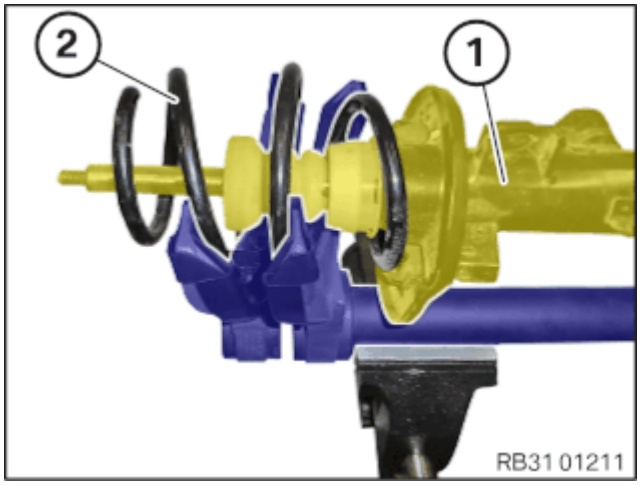
▶ Replace spring strut



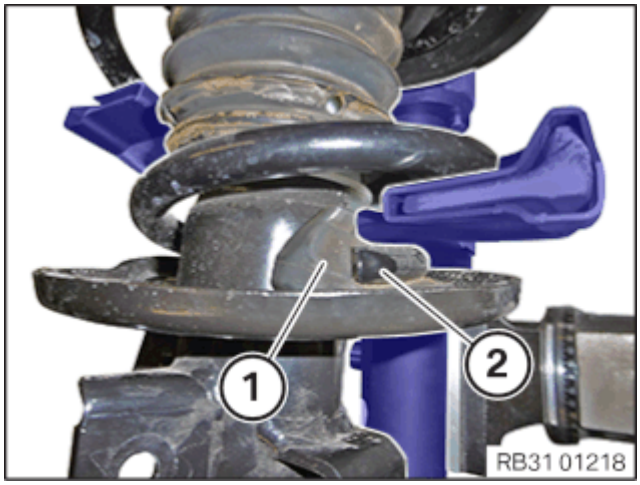
- Pull down the auxiliary damper (1) and the spring pad (2) from the spring strut.
- Renew the spring strut.

  Parts: Spring strut shock absorber
- Check the auxiliary damper (1) and the spring pad (2) for damage, renew if necessary.
- Position the auxiliary damper (1) and the spring pad (2) on the suspension strut.

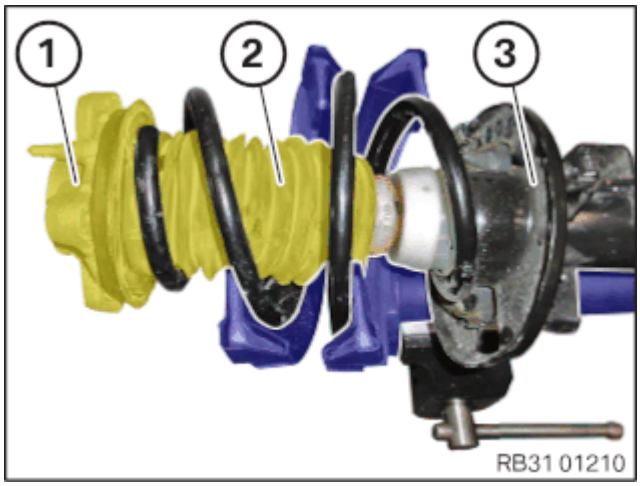
▶ Installing the spring strut support bearing



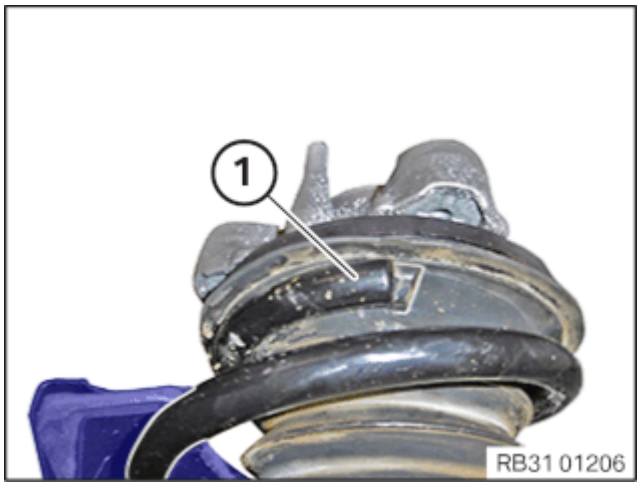
- Slide suspension strut (1) with the spring pad and auxiliary damper into tensioned coil spring (2).



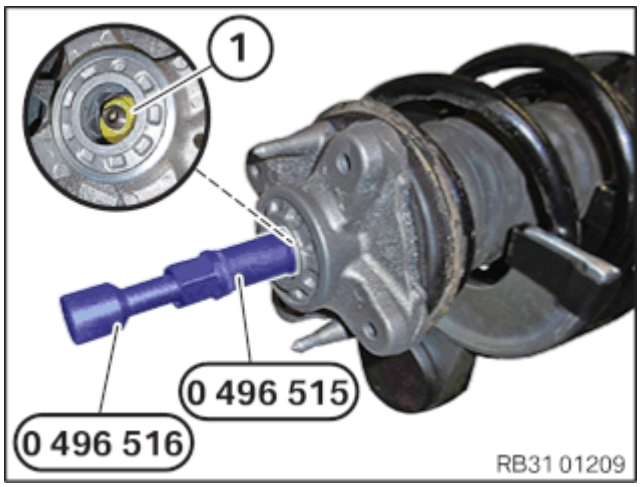
- Align the suspension strut with the spring pad (1) to the bottom coil spring end (2) up to the limit position.



- Check the strut mount (1) and the protective tube (2) for damage, renew if necessary.
- Slide the strut mount (1) with the protective tube (2) on to the piston rod of the suspension strut (3).



- Align the strut mount with the protective tube for the top coil spring end (1) up to the limit position.



Releasing and tightening the nut on the support bearing or strut mount with an impact screwdriver is prohibited.

- Renew nut (1).

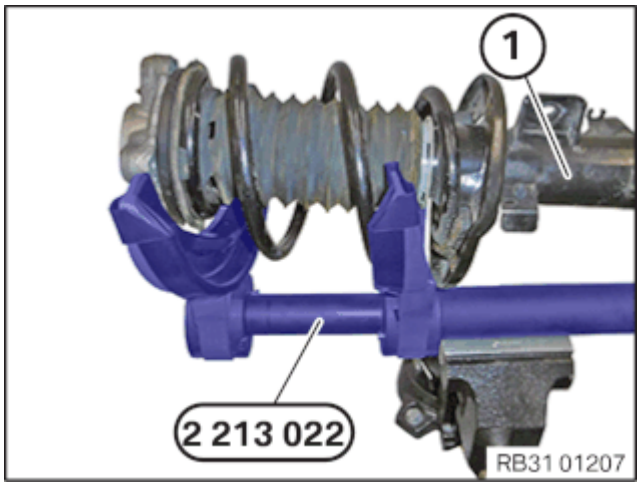
  Parts: Nut

- Tighten the nut (1) at the spring strut support bearing with the special tools and .

Front spring strut support bearing to spring strut

M12	Renew nut.	71 Nm

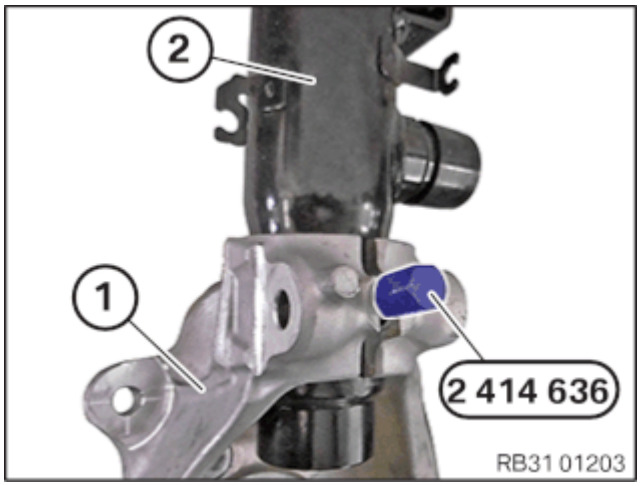
▶ Relieve tension on coil spring



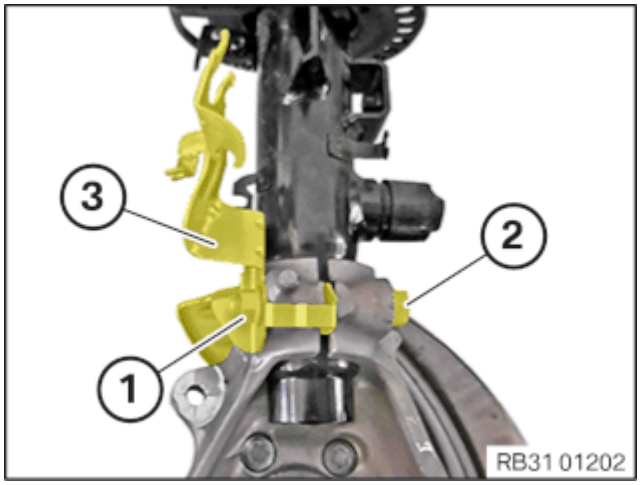
- Release the coil spring with the special tool .
- Make sure that the coil spring ends lie at the top and bottom on the spring pads (correct position if necessary).
- Remove the spring strut (1) from the special tool .

POSTPROCESSES

20 – Fastening the spring strut on to the swivel bearing



- Spread the swivel bearing (1) with the special tool .
- Align the positioning pin on to the spring strut (2) correctly with the gap on the swivel bearing (1).
- Slide in the spring strut (2) up to the limit position in the swivel bearing (1).
- Remove the special tool .



- Position the bracket (3) on the swivel bearing.
- Renew screw (2) and nut (1).

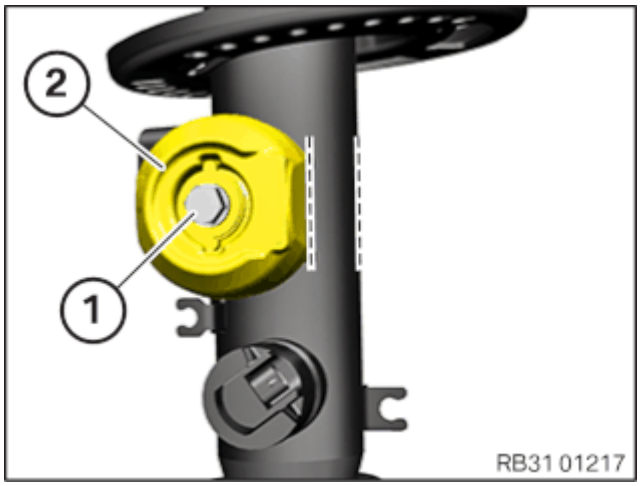
  Parts: Bolt, nut
- Insert screw (2) and guide nut (1).
- Tighten down screw (2).

Spring strut shock absorber to swivel bearing

M10	Renew screw and nut.	Tightening torque	60 Nm
	Tightening via screw.	Angle of rotation	180 °

21 – Installing an absorber weight on the spring strut

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.



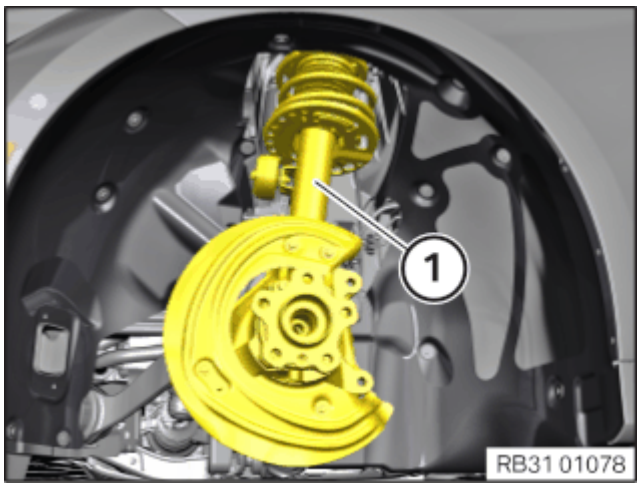
- Position the absorber weight (2) with the flattened side parallel to the spring strut.
- Renew the screw (1).

  Parts: Screw
- Tighten down screw (1).

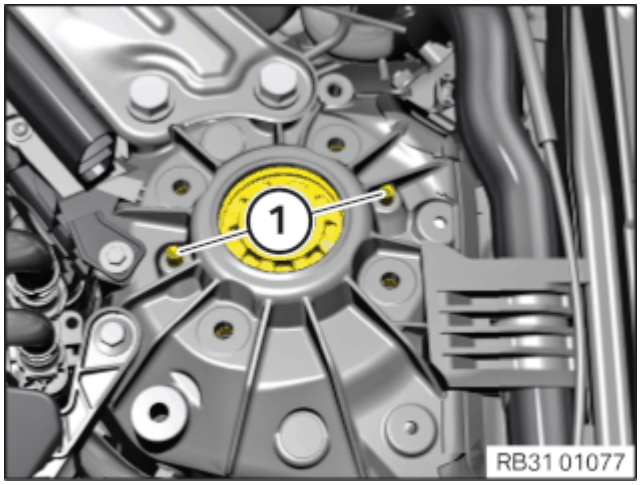
Absorber weight to spring strut

M8	Renew screw.	Tightening torque	28 Nm
		Angle of rotation	90 °

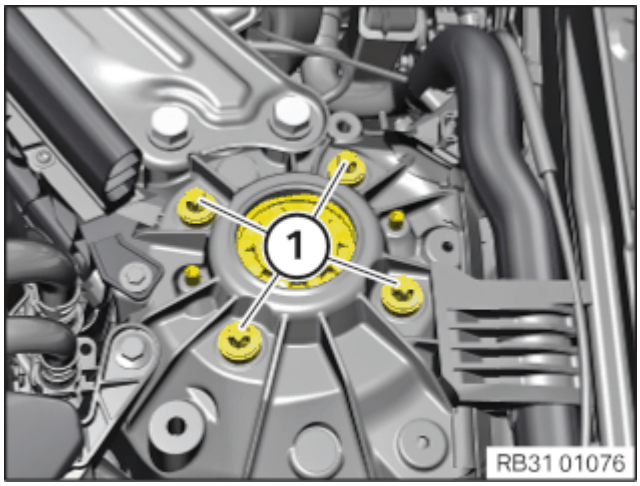
22 – Installing the spring strut



- Position the spring strut (1) with the swivel bearing in the wheel arch.



- Ensure correct positioning of journal (1) of support bearing on the spring strut dome.



- Renew screws (1).

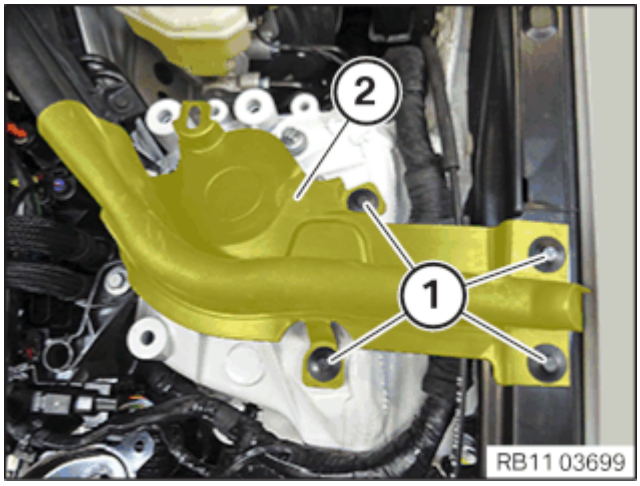
  Parts: Screws

- Tighten the screws (1).

Nut and locknut/self-locking nut

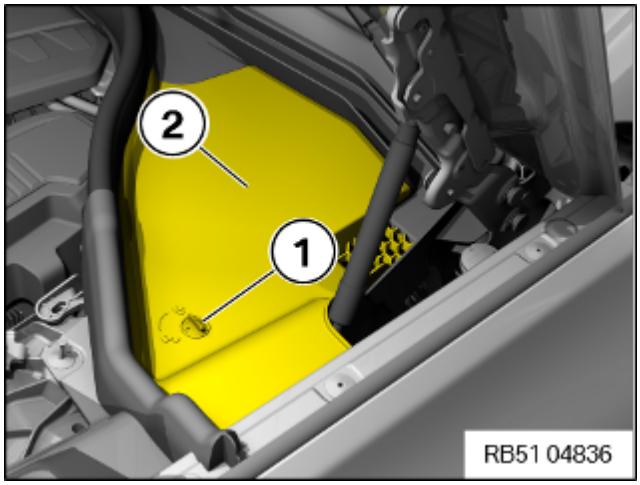
M8	Renew screws.	Tightening torque	28 Nm
		Angle of rotation	90 °

23 – Install the side bonnet seal



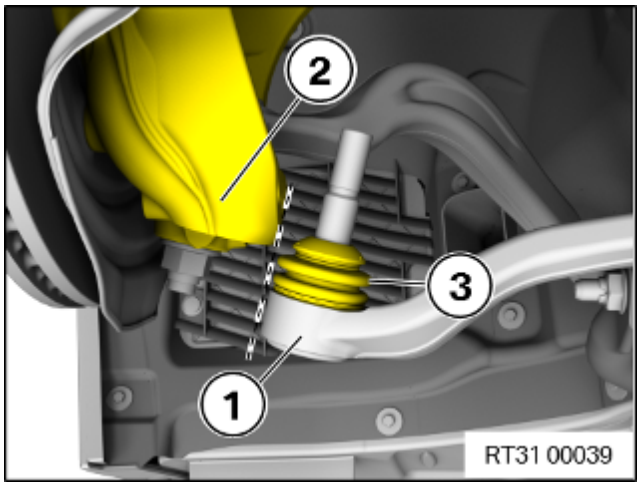
- Position the side bonnet seal (2) on the spring strut dome.
- Secure the rivet (1).

24 – Install the cover of the engine compartment on the rear left



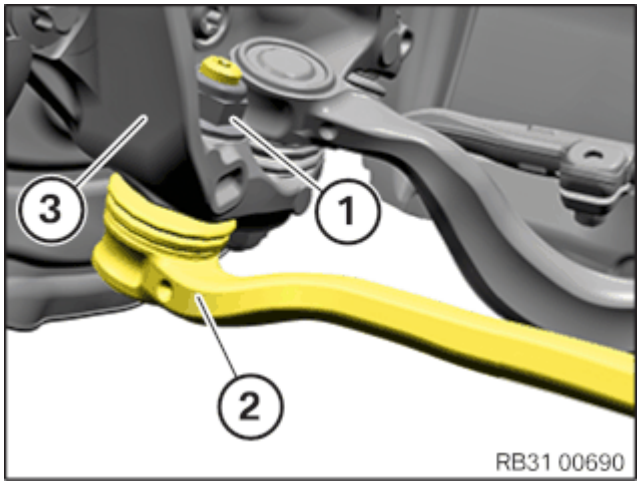
- Position the engine compartment cover at the rear left (2) .
- Close lock (1).

25 – Mounting the wishbone on the swivel bearing



Otherwise, the rubber grommet can be damaged. The components must not be touching.

- Make sure that the rubber grommet (3) on bottom wishbone (1) is not damaged by the swivel bearing (2).



- Position the wishbone (2) on the swivel bearing (3).
- Renew nut (1).

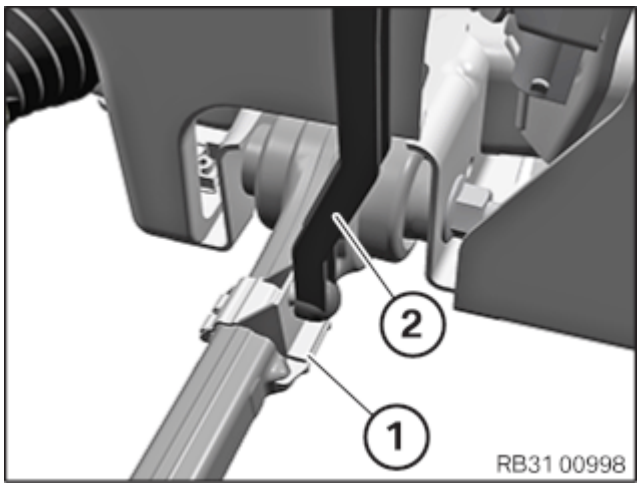
  Parts: Nut
- Tighten nut (1). If necessary, counter support at the Torx socket.

Wishbone to swivel bearing

M14	Renew nut.	Tightening torque	175 Nm

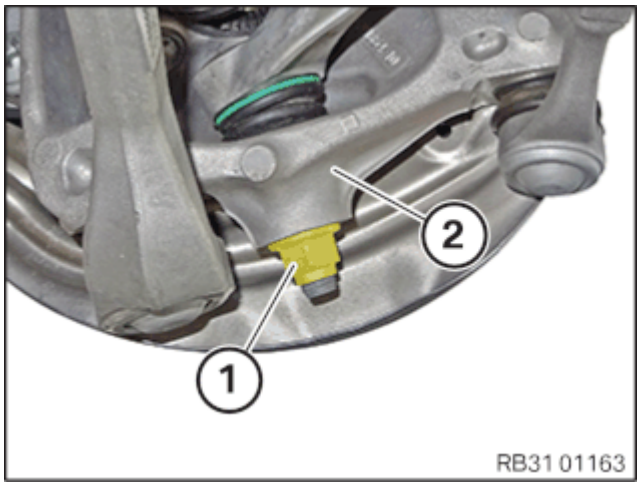
26 – Attach the ride height sensor on the bottom wishbone

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.



- Position and lock the holder (1) of the attachment rod (2) of the ride height sensor on the lower control arm.

27 – Securing tension strut on swivel bearing



- Position tension strut on swivel bearing (2).
- Renew nut (1).

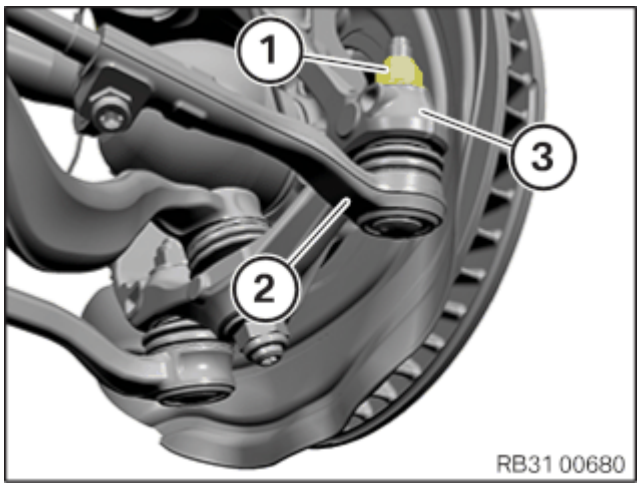
  Parts: Nut
- Tighten nut (1).

Note: Use the Torx socket for counter support.

Tension strut to swivel bearing

M14	Renew nut.	Tightening torque	175 Nm

28 – Securing the track rod on the swivel bearing



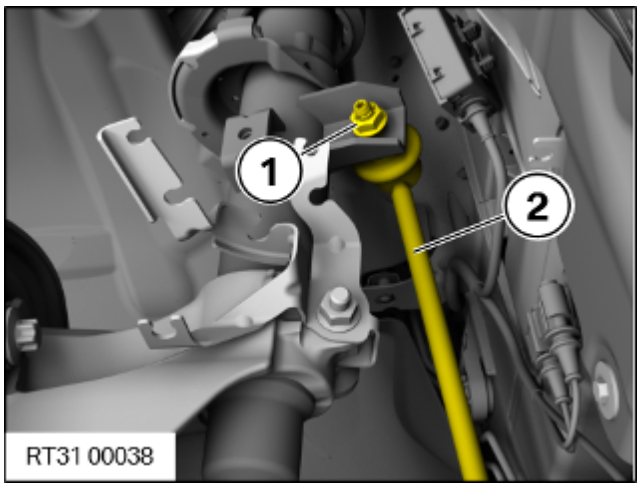
- Position the track rod (2) on the swivel bearing (3).
- Renew nut (1).

  Parts: Nut
- Tighten nut (1). If necessary, counter support at the Torx socket.

Track rod end to swivel bearing

M14	Renew nut.	Tightening torque	165 Nm

29 – Securing the anti-roll bar link on the spring strut



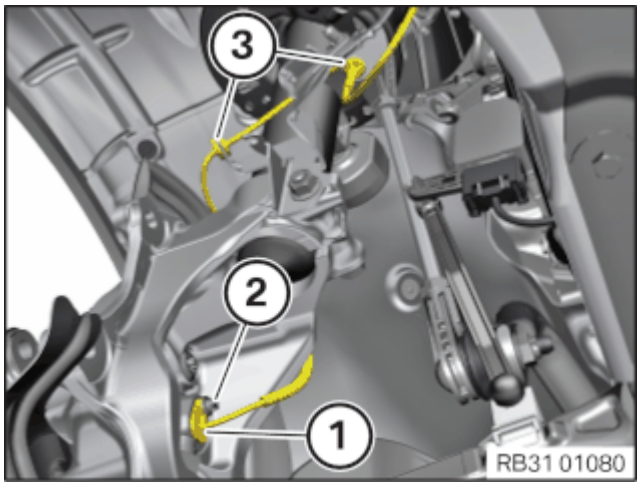
- Position the anti-roll bar link (2) at the spring strut.
- Renew nut (1).

  Parts: Nut
- Tighten the nut (1), if necessary, counter support the Torx socket.

Front anti-roll bar link to anti-roll bar/spring strut

M10	Renew nut.	Tightening torque	56 Nm

30 – Installing the front wheel speed sensor partially



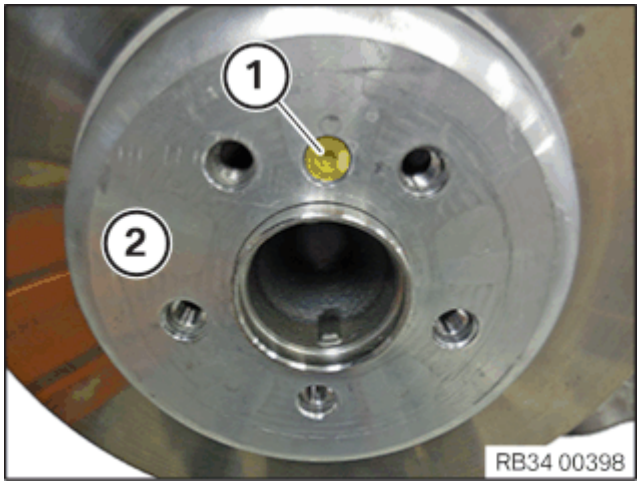
- Position the wheel speed sensor on the spring strut.
- Mount the cable of wheel speed sensor on the holders(3).
- Position the wheel speed sensor (1) on the swivel bearing.
- Renew the screw (2).

  Parts: Screw
- Tighten down screw (2).

Wheel speed sensor to swivel bearing

M6	Renew screw.	Tightening torque	12 Nm

31 – Install front brake disc



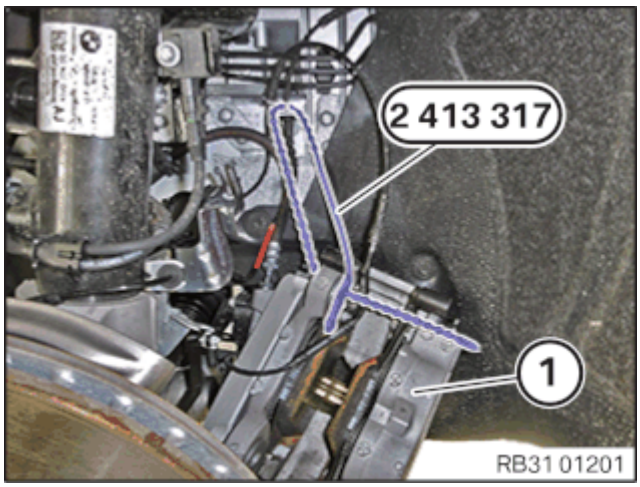
- Position brake disc (2) on wheel hub.
- Renew the screw (1).

  Parts: Screw
- Position and tighten the screw (1).

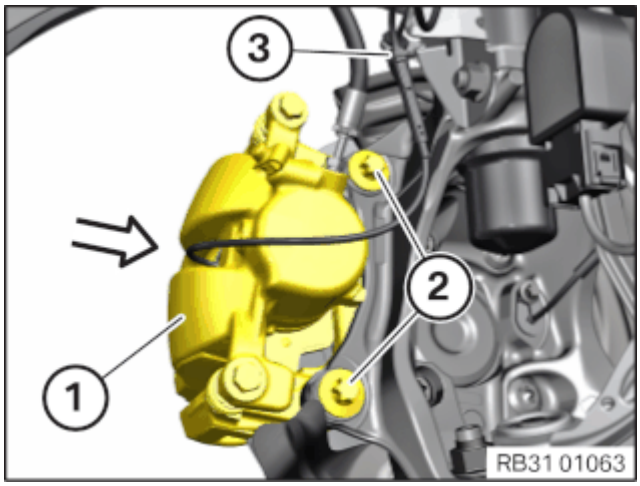
Brake disc to front wheel hub

M8	Renew screw.	Tightening torque	16 Nm

32 – Fasten the front brake caliper



- Release the special tool **2 413 317** from the brake caliper (1) and remove.
- The brake caliper (1) must not suspend at the brake hose.



- Position the brake caliper (1) in direction of arrow on the swivel bearing.
- Renew screws (2).

  Parts: Screws
- Tighten the screws (2).

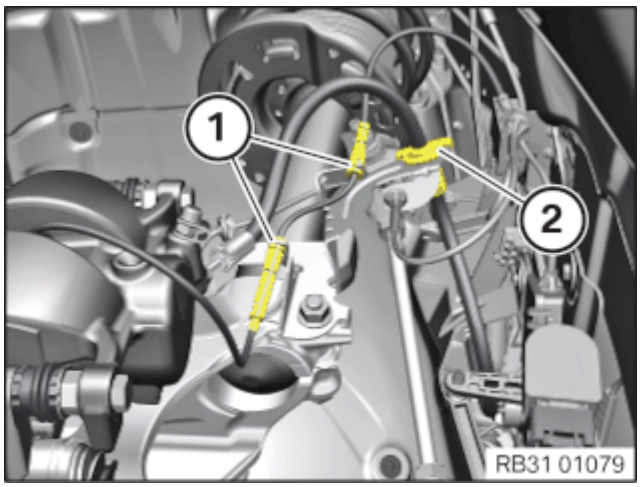
Brake caliper / caliper carrier at front swivel bearing

M12	Renew screw.	Tightening torque	110 Nm

Perform this step on the left side only.

- Fasten the cable of the brake pad wear sensor to the holder (3).

33 – Attaching the front brake hose



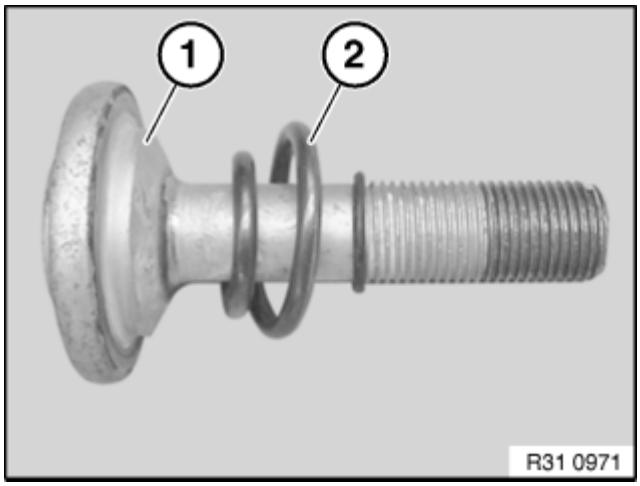
- Hook the brake hose to the holder (2).

The following work step(s) is / are to be carried out if the specified component(s) is/are fitted.

- Hook the cable for the brake pad wear sensor to the holders (1).

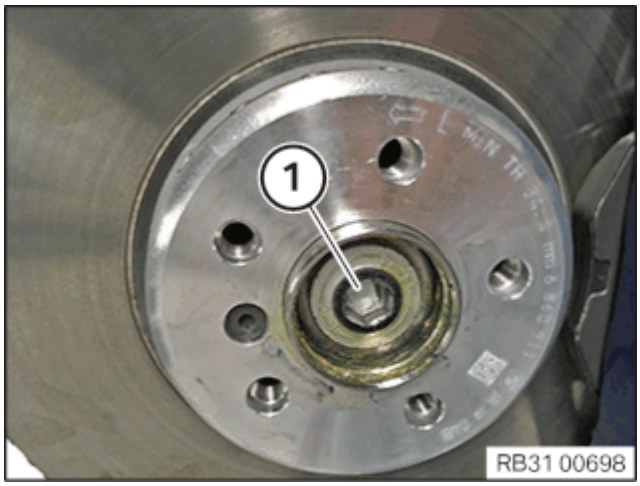
34 – Securing the output shaft on the wheel bearing

The installation note for front gearing must be observed at all times.

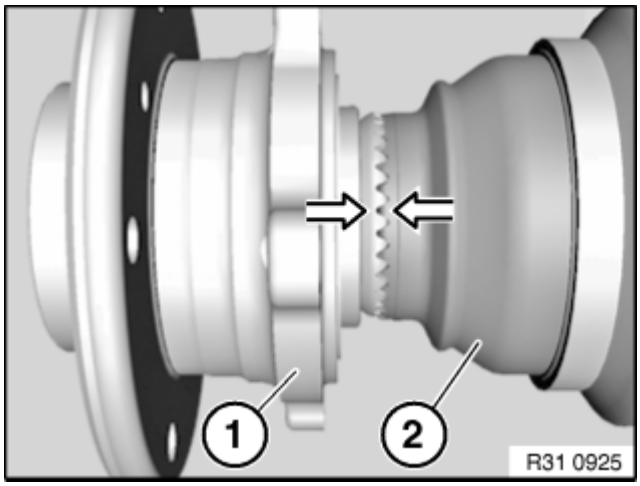


- Renew the collar bolt (1) and the compression spring (2).

  Parts: Collar bolt and compression spring
- Note installation position of compression spring (2).
- Keep the collar bolt (1) and the front gearing of the wheel bearing and the output shaft clean and free of grease.



- Hand-tighten the collar bolt (1) with the compression spring.



The front gearing of the wheel bearing and output shaft must be installed in an interlocking position (tooth-in-tooth).

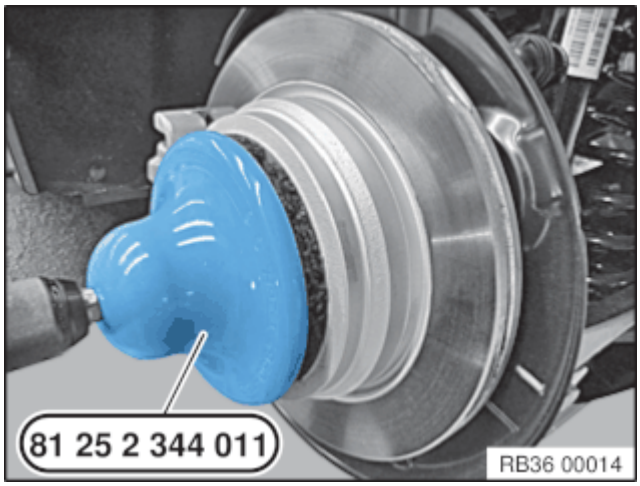
- Ensure positive locking by mutual twisting of the wheel bearing (1) and the output shaft (2).
- Press brake pedal.
- Tighten the collar bolt.

Output shaft to wheel bearing

M16	Replace collar bolt and spring.	Jointing torque	210 Nm
		Angle of rotation	90 °

35 – Attaching the front left wheel

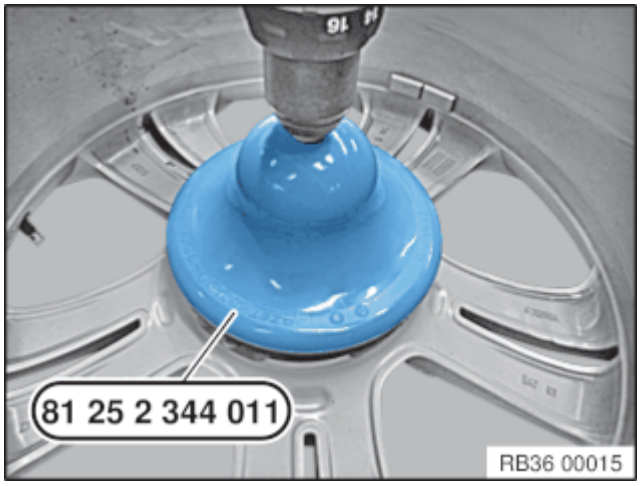
▶ Mounting the wheel



The contact surface between the brake disc and the wheel rim must be clean and free from oil and grease. There is otherwise a risk of the wheel becoming loose at a later time.

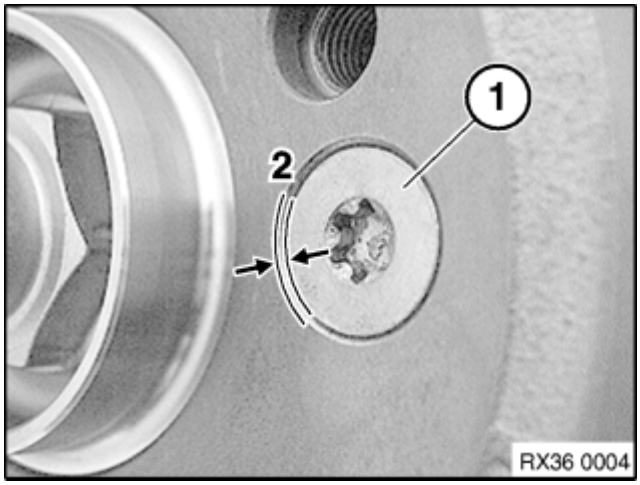
- Remove dirt, grease residues and corrosion from the contact surface with a drill and the special tool **2 344 011**.

  Do not operate special tool **2 344 011** with an impact screwdriver.
- Degrease the contact surfaces with the universal cleaner (see BMW Group Parts).
- In the event of grease residue in the area of the wheel bolt holes, remove and clean the brake disc.



- Remove dirt, grease residues and corrosion from the contact surface with a drill and the special tool **2 344 011**.

  Do not operate special tool **2 344 011** with an impact screwdriver.
- Degrease the contact surfaces with the universal cleaner (see BMW Group Parts).



- Check that the mounting bolt (1) for the brake disc is securely seated.

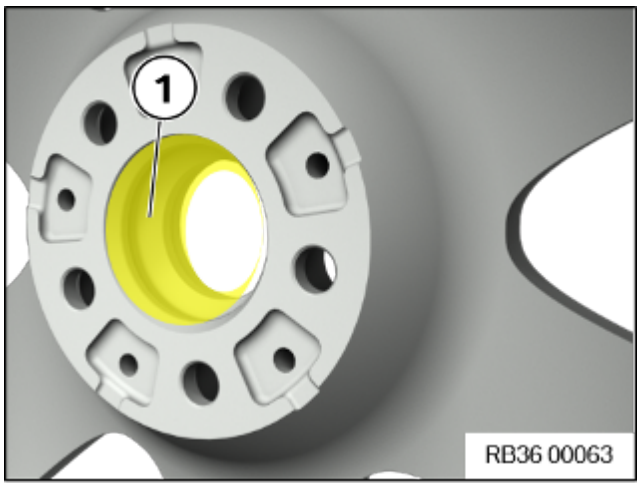
  The mounting bolt (1) for the brake disc **may not** protrude on the contact surface (2) between the brake disc and the wheel rim.

Brake disc to front wheel hub

M8	Renew screw.	Tightening torque	16 Nm

Brake disc to rear wheel hub

M8	Renew screw.	Tightening torque	16 Nm

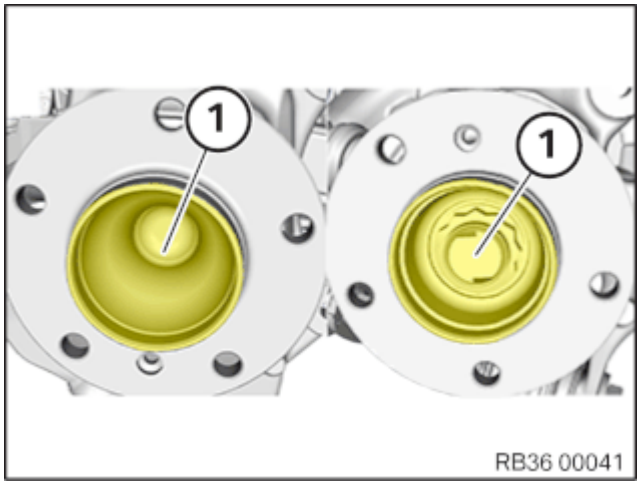


Wheel hubs and wheel centering on the models G80, G82 and G83 **must not** be greased.

- Thinly grease the wheel centring (1) in the wheel rim.

Expendable materials

Brake block paste * TU = Trade Unit. TU numbers cannot be ordered! For invoicing purposes only.	3 g, Bag	83192158851
	100 g, Tube	83192158852
	5 g, TU*	83230140233



Wheel hubs and wheel centering on the models G80, G82 and G83 **must not** be greased.

- Apply a thin layer of grease to the front and rear wheel hubs (1) to protect against corrosion.

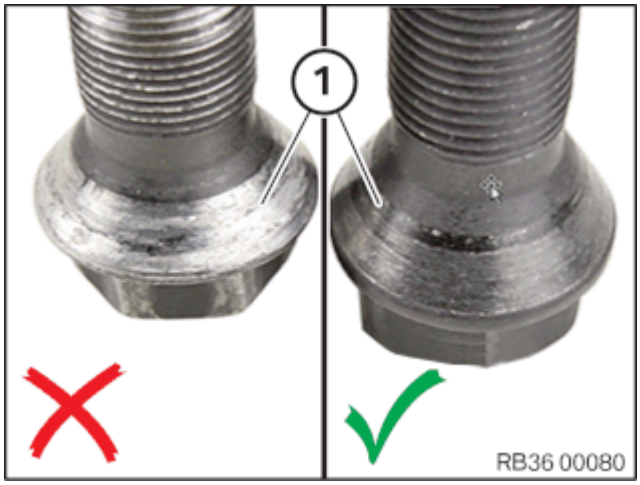
Expendable materials

Brake block paste * TU = Trade Unit. TU numbers cannot be ordered! For invoicing purposes only.	3 g, Bag	83192158851
	100 g, Tube	83192158852
	5 g, TU*	83230140233

A wheel lift is recommended for easier wheel removal and installation without exertion (see Retailer Equipment Catalogue).

- **In vehicles with M Carbon ceramic brake: The wheel lift must be used to install the wheel.**

  This process is intended to prevent damage to the brake disc.



Check

- **Check wheel bolts for wear.**

Result

» Places (> 30%) of the bearing surfaces (1) of the taper on the screw head show a silver wear.

Measure

- Replace wheel bolts.

  Parts: Wheel bolts

Never use impact screwdrivers or electric screwdrivers to screw in and tighten the wheel bolts.

The wheel rim must rest uniformly against the brake disc.

In the case of non-original BMW wheel bolts/wheel rims, it may be necessary to retighten the wheel bolts on account of setting properties (refer to the documentation from the manufacturer).

Do not apply oil to new wheel bolts.

- Renew the corroded wheel bolts (arrows).

  Parts: Wheel bolts
- Clean the wheel bolts (arrows).
- Check the wheel bolts (arrows) and threads for damage, renew the wheel bolts (arrows) if necessary.
- Join and tighten the wheel bolts (arrows).

Wheel bolts

M14 / SW17	Screw in wheel bolts and evenly tighten crosswise by hand in order to centre the wheel rim.	Tightening torque	140 Nm
	Tighten wheel bolts to the prescribed tightening torque with a calibrated torque wrench in a crosswise sequence.	Check	140 Nm
	Check all the wheel bolts in the same order or retighten to the prescribed tightening torque again.		

Additional Information

Overview of Tightening Torques

Special tool to pressure plate			Used in step 18
		Tightening torque	8 Nm

Front spring strut support bearing to spring strut			Used in step 18 19
M12	Renew nut.		71 Nm

Spring strut shock absorber to swivel bearing			Used in step 20
M10	Renew screw and nut. Tightening via screw.	Tightening torque	60 Nm
		Angle of rotation	180 °

Absorber weight to spring strut			Used in step 21
M8	Renew screw.	Tightening torque	28 Nm
		Angle of rotation	90 °

Nut and locknut/self-locking nut			Used in step 22
M8	Renew screws.	Tightening torque	28 Nm
		Angle of rotation	90 °

Wishbone to swivel bearing			Used in step 25
M14	Renew nut.	Tightening torque	175 Nm

Tension strut to swivel bearing			Used in step 27
M14	Renew nut.	Tightening torque	175 Nm

Track rod end to swivel bearing			Used in step 28
M14	Renew nut.	Tightening torque	165 Nm

Front anti-roll bar link to anti-roll bar/spring strut			Used in step 29
M10	Renew nut.	Tightening torque	56 Nm

Wheel speed sensor to swivel bearing			Used in step 30
M6	Renew screw.	Tightening torque	12 Nm

Brake disc to front wheel hub			Used in step 31 35
M8	Renew screw.	Tightening torque	16 Nm

Brake caliper / caliper carrier at front swivel bearing			Used in step 32
M12	Renew screw.	Tightening torque	110 Nm

Output shaft to wheel bearing Used in step 34

M16	Replace collar bolt and spring.	Jointing torque	210 Nm
		Angle of rotation	90 °

Brake disc to rear wheel hub Used in step 35

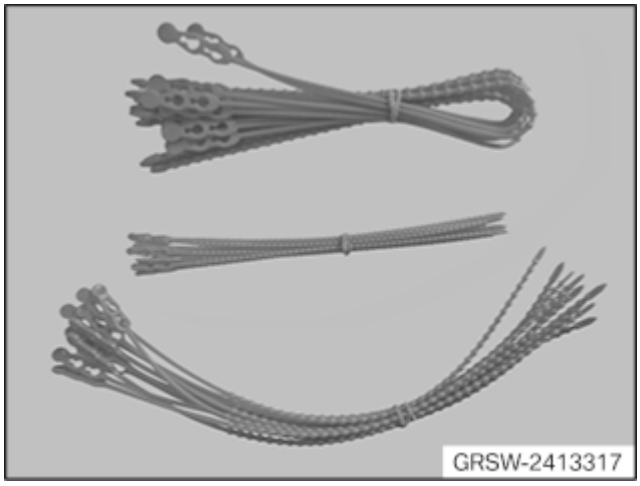
M8	Renew screw.	Tightening torque	16 Nm

Wheel bolts Used in step 35

M14 / SW17	Screw in wheel bolts and evenly tighten crosswise by hand in order to centre the wheel rim. Tighten wheel bolts to the prescribed tightening torque with a calibrated torque wrench in a crosswise sequence. Check all the wheel bolts in the same order or retighten to the prescribed tightening torque again.	Tightening torque Check	140 Nm 140 Nm

Overview of Special Tools

2 413 317 Cable strap



Common Used in step 4 32

Usage	The "Cable ties" parts set consists of 3 items as follows: ABV232 Length: 320 mm colour: RedABV250 Length: 500 mm colour: RedABVS270 Length: 665 mm colour: Red
Included in the tool or work	
Storage location	
Replaced by	
In connection with	
SI-Number	01 47 15 (332)

2 213 040 (31 3 364) Insert

Common Used in step 17

Usage	Protective insert As of 08/2011, replaces the previous special tool number 31 3 364, see SI 01 16 11

	(738). Protective insert suitable for clamping plate 31 3 382 = 83 30 2 213 039.
Included in the tool or work	
Storage location	Individual
Replaced by	
In connection with	
SI-Number	01 16 11 (738)

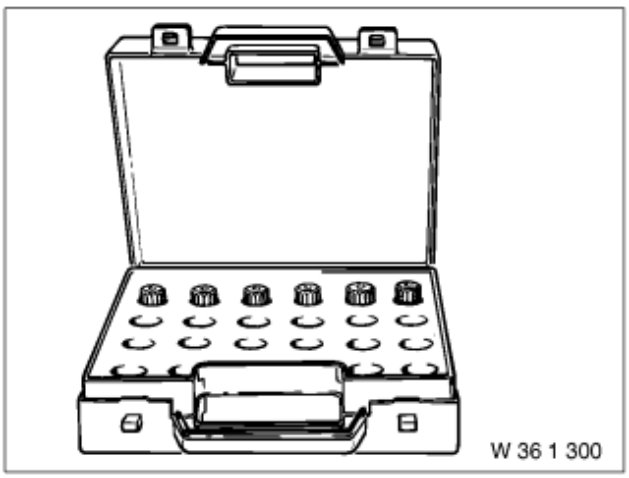
2 344 011 Tool

Common Used in step 35

Usage	Tool (wheel hub grinder) for cleaning the connection of the wheel rim (wheel contact face) to the wheel hub.
Included in the tool or work	
Storage location	
Replaced by	
In connection with	
SI-Number	08 08 12 (872)

Replacement tools:

0 495 221 (36 1 323) Wheel stud

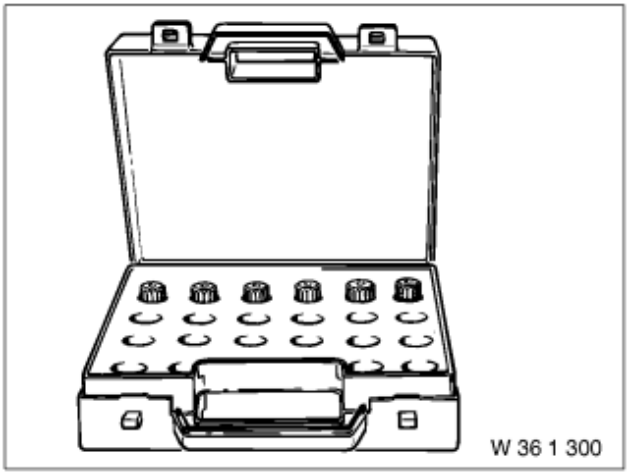


Common Used in step 1

Usage	(Code 30) Code 39 available separately, (see EPC) under 36 13 1 181 259
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection	

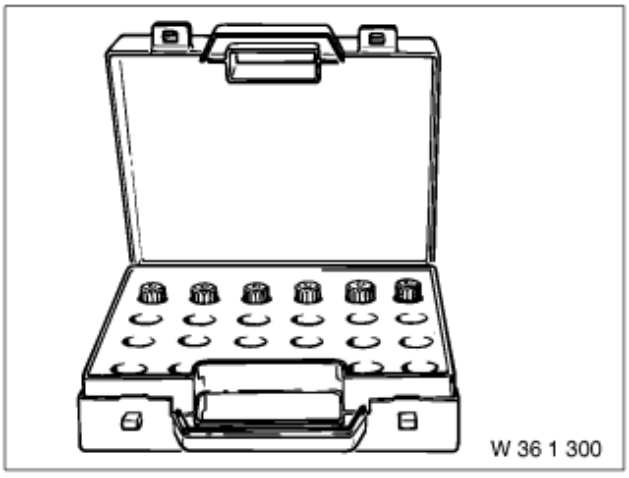
with	
SI-Number	

0 495 224 (36 1 326) Wheel stud



Common	Used in step 1
Usage	(Code 33) With centring bore available separately, (see EPC) under 36 13 6 765 546
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

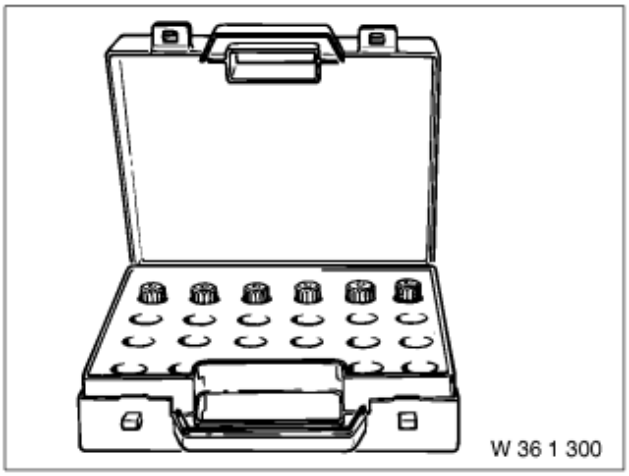
0 495 225 (36 1 327) Wheel stud



Common	Used in step 1
Usage	(Code 34) With centring bore available separately (see EPC) under 36 13 6 765 547
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

0 495 226 (36 1 328) Wheel stud

Common	Used in step 1
Usage	(Code 35) With centring bore available separately, (see EPC) under 36 13 6 762 340
Included in the tool or work	0 492 518
Storage	



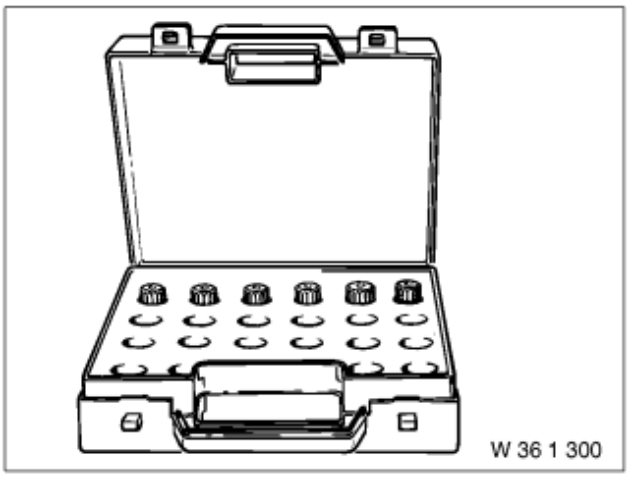
location

Replaced by

In connection with

SI-Number

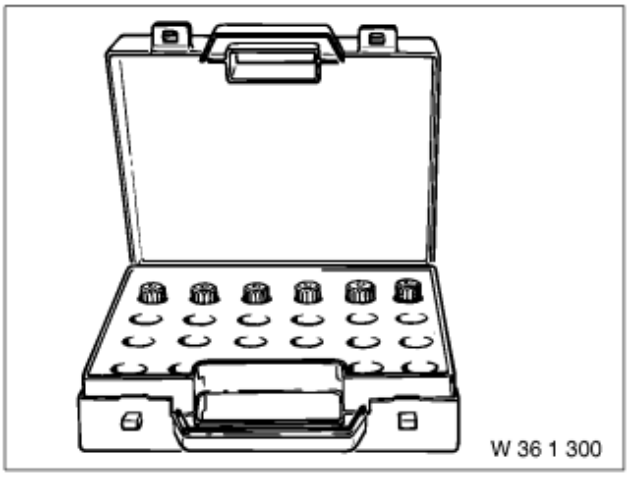
0 495 227 (36 1 329) Wheel stud



Common Used in step 1

Usage	(Code 36) With centring bore available separately (see EPC) under 36 13 6 762 341
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

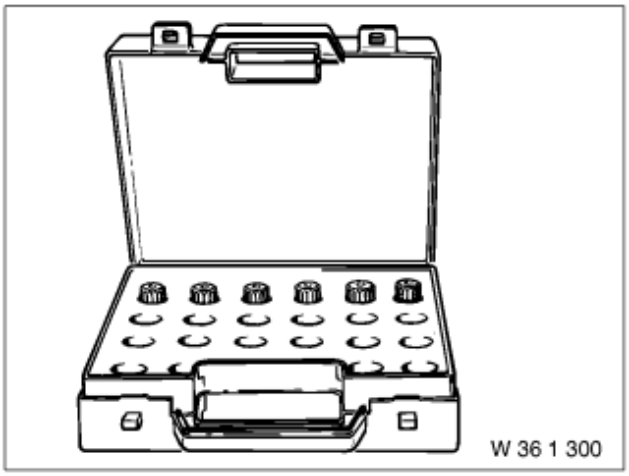
0 495 228 (36 1 331) Wheel stud



Common Used in step 1

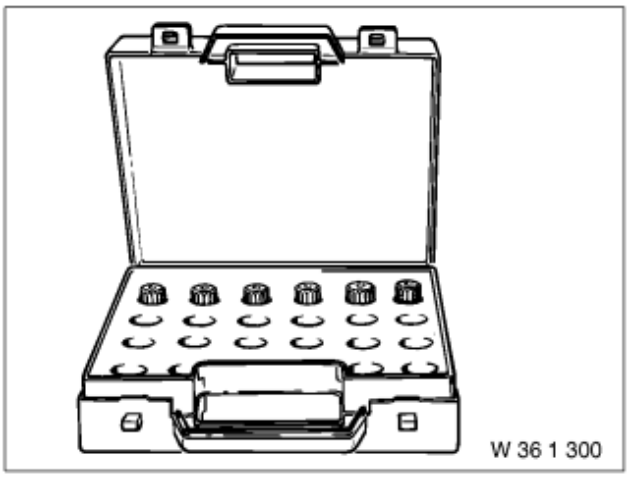
Usage	(Code 37) With centring bore available separately (see EPC) under 36 13 6 762 342
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

0 495 229 (36 1 332) Wheel stud



Common	Used in step 1
Usage	(Code 38) With centring bore available separately (see EPC) under 36 13 6 762 343
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

0 495 230 (36 1 333) Wheel stud



Common	Used in step 1
Usage	(Code 40) With centring bore available separately (see EPC) under 36 13 6 762 344
Included in the tool or work	0 492 518
Storage location	
Replaced by	
In connection with	
SI-Number	

Links

Repair instructions	Used in step
00 02 001 Raising the vehicle using a vehicle lift	1 35